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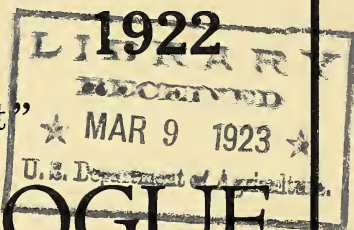
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1922

LONG'S

"Delightfully Different"

SEED CATALOGUE



Tried and True Seeds, Bulbs and Plants

Best for the West



PARTIAL VIEW OF ONE OF *LONG'S* GLADIOLUS FIELDS, IN WHICH ARE GROWN MOST OF THE GLAD BULBS WE OFFER.

The wonderful new variety, Le Marechal Foch, is shown here. It's extremely early, yet of gigantic size, and a beauty. The 5,000 bulbs in this field were imported from Holland by Mr. Long, under special permit from the U. S. Horticultural Board, last spring. See Gladiolus pages.

THE J. D. LONG SEED COMPANY

Boulder, Colorado

LONG'S

GIANT SPENCER SWEET PEAS

Select varieties, in a wide range of colors, tints and shades. Edges of blossoms usually waved or frilled, giving an added charm to this popular flower.

Supply of some varieties short. Name second choice if order late.

Half Ounce at Ounce Rate

SP0. AUSTIN FREDERICK. New. Extra large, and fine lavender. Pkt., 10c; oz., 60c.

SP1. BARBARA. Superb salmon. Pkt., 10c; oz., 40c.

SP2. BLANCHE FERREY. Pink and White Spencer. Pkt., 10c; oz., 30c.

SP3. BUTTERCUP. Best cream or primrose. Pkt., 10c; oz., 40c.

SP5. CONSTANCE HINTON. Finest exhibition White Spencer. Great prize winner. Slightly tinted pink upon opening, but turns pure white. Black seeded, standing earlier planting than other whites. Pkt., 10c; oz., 60c.

SP6. COUNTESS SPENCER. The original Spencer. Clear pink. Pkt., 10c; oz., 35c.

SP7. DAINTY. White with picotee edges. "Dainty is right." Pkt., 10c; oz., 40c.

SP8. EDWARD COWDY. Glowing orange-scarlet. Pkt., 10c. (Sold in pkts. only.)

SP9. ELFRIDA PIERSON. Large and lovely shell pink, tinted salmon. Pkt., 10c; oz., 40c.

SP10. EMPRESS EUGENIE. Gray, flaked lavender. Novelty. Pkt., 10c. (Sold in pkts. only.)

SP11. HAWLMARK PINK. New, Rich, bright, rose-pink, flushed salmon. The richest colored sweet pea. Pkt., 15c. (Sold in pkts. only.)

SP12. HERCULES. Mammoth rosy pink. Improved Countess. Pkt., 10c; oz., 50c.

SP13. IRISH BELLE, or DREAM. Rich lilac, flushed with pink. Pkt., 10c; oz., 30c.

SP14. KING EDWARD. The finest pure red Spencer. Does not burn in sun. Pkt., 10c; oz., 35c.

SP15. MRS. HITCHCOCK. New. Pale pink, flushed salmon on cream ground. Pkt., 10c; oz., 70c.

SP16. KING WHITE. Large blossoms of purest, glistening white. Pkt., 10c; oz., 40c.

SP17. LORD NELSON. Splendid navy blue Spencer. Pkt., 10c; oz., 35c.

SP18. LOVELY. Delicate rose. Pkt., 10c; oz., 40c.

SP19. MARGARET ATLEE. Extra large flowers of rich glowing pink, softly suffused with salmon. Extra fine. Pkt., 10c; oz., 50c.



SP20. MARKS TEY. Maroon standard; bluish wings. Large. Pkt., 10c. (Sold in pkts. only.)

SP22. MRS. TOM JONES. New. Bright delphinium blue. Pkt., 10c; oz., 70c.

SP23. NUBIAN. Deep maroon. Pkt., 10c; oz., 40c.

SP24. ORCHID. Lavender, suffused pink, suggesting the rich tone of the Cattleya orchid. Pkt., 10c; oz., 40c.

SP25. R. F. FELTON. Soft shade of lavender. Large and exquisitely waved. Pkt., 10c; oz., 40c.

SP22. ROYAL PURPLE. Rich rosy purple. Large and fine. Pkt., 10c; oz., 50c.

SP30. SENATOR. Claret striped on heliotrope ground. Pkt., 10c; oz., 30c.

SP31. THE CARDINAL. Intense poppy scarlet. Extra fine. Pkt., 10c; oz., 60c.

SP33. WEDGEWOOD. Unique shade of lovely light blue. A favorite. Pkt., 10c; oz., 40c.

SP34. YARRAWA. The pioneer extra early Spencer. Bright rose-pink, with clear creamy base. Pkt., 10c; oz., 60c.

LONG'S "Lovely 'Leven" Spencers

To get these special prices you must leave the selection to me, for I will vary it during the season, according to the stocks we have on hand. Also, the assortments will be put up in advance, when our help is not rushed, so we can just grab a collection and fire it out in a hurry when your order arrives.

Now to begin with, and well into the season at least—maybe all season, if stocks of each kind hold out—I'm going to send you the following superb eleven varieties. See opposite page for names and colors. Will lead off with the wonderful lavender, Austin Frederick, No. 0, then follow with these ten: 3, 5, 7, 9, 12, 14, 17, 19, 28, 31.

There now, isn't that indeed a "Lovely 'Leven" list! And I've got the goods, too. Plenty to fill a whole lot of orders without any change in the list. But even if changed later on, all will be lovely, and equal value will be given. One 10c pkt. each the above "Lovely 'Leven," value \$1.10. My special price for the 11 pkts., 85c, prepaid. Half an ounce each of the "Lovely 'Leven," value \$2.60. My special price for half ounce each of the 11 kinds, \$1.75, prepaid. Get your sweet peas early, plant them early, for best results.

Listen! We always have a rush and scramble in the sweet pea department just before March 17th. If you will get your order in before March 12th, I'll slip in an extra packet of some nice named Spencer, gratis. "Come a-running."

LONG'S "Early Bird" Spencers

Ah! Here's something that will delight all you sweet pea fans. Just think of this! Real and truly Spencers, of large size, beautiful, waxy form and exquisite colors, that begin blooming a month or so before other Spencers or the common grandiflora varieties.

Still better, under favorable conditions, and if kept closely picked, they just bloom and keep on blooming all summer. Last season I had some in bloom up to the last of October.

This new "Early Bird" race of Spencers is the kind the florists use for forcing under glass, but they do splendidly in the open garden as well. The seed is scarce and high priced. My suggestion is that you buy a little of these "Early Birds" along with your main supply of the grand but later varieties, thus trying them out for yourself, and prolonging the sweet pea season. They are valuable also on account of coming into bloom before hot weather. Here are five of the most popular colors, and a delightful mixture of these and other colors of the "Early Bird" race. Price for any color or mixed: Pkt., 15c; ½ oz., 50c.

SP80. AMETHYST. Royal purple.
SP82. AVIATOR. Dazzling crimson-scarlet.
SP84. LAVENDER KING. Clear lavender.
SP86. ROSE QUEEN. Soft rose-pink.
SP88. SNOWSTORM. Pure snow white.
SP90. Above and other "Early Bird" Spencers, mixed.

Grandiflora

These are the Sweet Peas universally grown until recent years. They are fine, but most people find the Spencers still better. (See list of Spencers on opposite page.)

All colors, at: Pkt., 5c; oz., 15c; ¼ lb., 40c.

SP45 White. SP46 Deep Pink.
SP47 Light Pink.
SP48 Cream. SP49 Salmon.
SP50 Lavender. SP52 Red.
SP53 Blue. SP54 Maroon.
SP55 All Colors Mixed.

Perennial

Once established, these hardy plants improve from year to year. The white is especially beautiful; very large, waxy white clusters, fine for bouquets.

SP60 White. SP61 Pink.
SP62 Mixed.

Price for either color or mixed: Pkt., 10c; oz., 50c.
SP39. Cupid Sweet Peas. Mixed. Pkt., 5c; oz., 20c.



LONG'S "33-in-1" Spencer Mixture

SP41. In this mixture you get the best of up-to-date Spencers. I use 33 different named varieties. Of course you might not get all 33 kinds in a 10-cent packet—possibly not in an ounce—but they are all in this mixture. It is my ambition to make this the finest Spencer mixture offered this season. Pkt., 10c; oz., 35c; 2 oz., 60c; ¼ lb., \$1; lb., \$3.75.

LONG'S Special Mixture

SP43. My mixture that has given such splendid satisfaction for a moderate price. It includes the best of the grandiflora varieties, a "right smart" of Spencers, and a sprinkling of extra early kinds, the latter coming so early that they spring a delightful surprise on you before you are looking for first blossoms. Pkt., 10c; oz., 15c; 2 oz., 25c; ¼ lb., 45c; 10 oz., \$1.00; lb., \$1.50.

Many Spencers Included in **LONG'S** Special Mixture

LONG'S**Beautiful, Bountiful, Brittle Beans**

All are brittle when young. Nos. 1, 3, 4 and 7 are tender and stringless until pretty well matured. All but V9 are bush varieties. All are priced prepaid.

For larger lots, see page 22.

**Burpee's Brittle Wax**

V1. The name tells the story. If I were to suggest any other name it would be **Icicle**, for the pods break like icicles, with hardly ever a sign of string, even when full grown. The flavor is best ever. Yield good. What more could one wish?

From introducer's stock, I've been growing this wonderful bean five years, over on the Western Slope, at an altitude of 6,000 feet, and now have extra fine acclimated seed, matured to perfection, glistening as though each bean hand-polished. The long, round, fleshy pods are a beautiful yellow.

Beans long, with black eye. Good as shell beans also. Pkt., 10c; $\frac{1}{2}$ lb., 20c; lb., 35c; 3 lbs., \$1, prepaid.

V2. GOLDEN WAX. Pkt., 10c; $\frac{1}{2}$ lb., 15c; lb., 25c.

V3. PENCIL POD. Beans black; pods round, yellow, brittle. Pkt., 5c; $\frac{1}{2}$ lb., 12c; lb., 20c.

V4. SURE CROP WAX. Tender yellow pods; beans black. Fine. Pkt., 10c; $\frac{1}{2}$ lb., 15c; lb., 25c.

V6. WARDWELL'S WAX. Very large; heavy yielder. Market variety. Pkt., 10c; $\frac{1}{2}$ lb., 15c; lb., 25c.

V7. BURPEE'S STRINGLESS GREEN POD. Might be described as a green pod "Brittle Wax." A great favorite. Beans brown. Extra fine mountain-grown seed. Pkt., 10c; $\frac{1}{2}$ lb., 18c; lb., 30c.

V8. GIANT STRINGLESS. Similar to V7. Pkt., 10c; $\frac{1}{2}$ lb., 15c; lb., 25c.

V9. KENTUCKY WONDER POLE. The favorite pole bean. Pkt., 10c; $\frac{1}{2}$ lb., 15c; lb., 25c.

V10. COLORADO CREAM BUTTER. (Aztec.) Immense white bean, shape of navy, with lima flavor. Pkt., 10c; $\frac{1}{2}$ lb., 15c; lb., 25c.

V11. HENDERSON'S LIMA. Pkt., 10c; $\frac{1}{2}$ lb., 15c; lb., 25c.

V12. FORDHOOK LIMA. Large, juicy and sweet "butter bean." Pkt., 10c; $\frac{1}{2}$ lb., 20c; lb., 35c.

NAVY, PINTO, TEPARY. Any these at: $\frac{1}{2}$ lb., 12c; lb., 20c. I do not carry large stocks of these three. You can probably buy large lots of them to better advantage elsewhere.



LONG'S Beautiful, Bountiful, Brittle Beans

Brittle Wax—\$580 Acre

Yes, I know that sounds big, but it's the truth. I'll tell you all about it. After taking up my tulip bulbs in summer of 1920 I planted a little less than one-fourth acre of the ground to my favorite "stringless string beans," Brittle Wax. This was July 10th. Thought might as well plant something in the ground as to let it loaf the rest of the season. And I have always noticed that there is a good demand for good tender snap beans late in the season, after main crops are marketed. Knew would not be out much even if I did not get a crop or a market for the beans. Never even plowed the ground after lifting the tulips, but the soil was rich, the way I keep my soil most the time.

You should have seen those beans hump themselves. In less than seven weeks some were ready to pick and a week later we were picking lots of them. My guess was right, for there were few beans on the market by the time these were ready. We got 10 cents a pound, wholesale, for nearly the whole crop of these snap beans. Boulder merchants could buy the tough kind of string beans in Denver for 7 cents, but were glad to pay 3 cents more for Brittle Wax.

We sold over \$140 worth, gave away a number of "messes" and had a plenty for our own table and for canning from this plot, so that I figure they yielded really more than at the rate of \$580 per acre. Not so bad as a catch crop, using the ground only about half the season! Believe one could follow an early crop of peas with Brittle Wax beans and make it win most any season.

"What about the bean bugs?" you ask. Well, that was just fool's luck, I guess, though I had made up my mind that I'd have that crop even if I had to deal harshly with the bugs. So I was all ready for them. Had a good sprayer and arsenate of lead on hand, ready to spray the vines as soon as they might need it. But only a few bugs ever showed up, and those came so late that the little work they did made no trouble.

I've wondered a good deal about this, and one solution is that the bean bug must be superstitious, for there were just 13 rows in this patch, and I take it the bugs thought that was an unlucky number for them. I'll say it would indeed have been unlucky for the bugs if they had tried to beat me to that crop. Another hunch I have is that those bugs got hold of my 1920 seed catalogue and read page 24, in which I gave that talk, "Beat the Bean Bugs." Told you just how to do the bean bug before he does you. Looks like I scared them out pretty generally, around Boulder at least, for we had less trouble from the bean bugs that season than for years. We never had to spray our early crop either, and many others reported same good luck, though a few crops were damaged a good bit. Is just another illustration of how garden pests come and go—are worse some seasons than others, and one can never tell what may be our troubles in this line. And it does not pay to lay down on the job one season just because the crop went to the bad the year before.

LONG'S "Big Four" List

Really, it would be hard to say which four are the best, but here are four that cover your wants mighty well, and are all hummers.

I'd sure head the list with Brittle Wax for yellow pods and Burpee's Stringless Green Pod for green pods. Yes, yes, I know, don't butt in, and tell me there are others "just as good" or maybe better. I'm just a-tellin' you of four that you can bank on and of which I have provided splendid Colorado-grown seed.

Then, there's Wardwell's Kidney Wax, a fine large yellow podded kind that is tender and nice when young, but is especially grown by market gardeners. Kentucky Wonder, in the pole variety, is hard to beat. Then "we have with us" that good new black wax, yellow podded sort, Sure Crop—but hold on—that makes five! So we might go on and add others to a right good list, but these four or five "fill a LONG felt need."



"We eat what we can, and what we can't eat we can"

LONG'S "Lovely 'Leven" Spencer Sweet Peas. \$1.10 worth for \$85;
\$2.60 worth for \$1.75. See page 3.

LONG'S "Live Beets"

V14. EARLY WONDER. A splendid extra early variety that is meeting with great favor. This quick growing, attractive variety is of the favorite globe shape. The flesh is dark red, sweet and tender. Fine for summer and fall use, canning, or storing for winter. Select seed. Pkt., 10c; oz., 15c.

V15. EXTRA EARLY EGYPTIAN. Very early; very dark; rather flat. Pkt., 5c; oz., 10c.

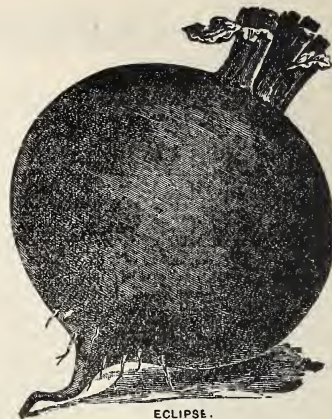
V16. CROSBY'S EARLY EGYPTIAN. Preferred now by most gardeners to the old flat type Egyptian. Uniform turnip shape; flesh deep red; quick growing. Pkt., 5c; oz., 10c.

V17. EARLY ECLIPSE. Similar to Early Wonder and Crosby's in season and shape, but flesh a brighter red, preferred by some. Pkt., 5c; oz., 10c.

V18. DETROIT DARK RED. Globe shape; smooth; dark red; tops small, admitting of close planting. Good all around early, medium or late variety. Splendid for canning when small. "Can you beet it?" Pkt., 5c; oz., 10c.

V19. BLOOD TURNIP. Discontinued. Use Detroit.

For larger lots, see page 22.



ECLIPSE.



LONG'S "3-in-1" Vegetable

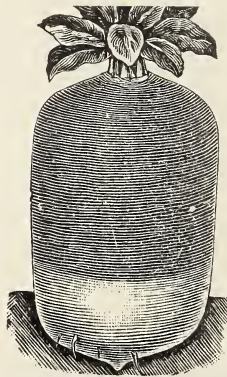
SWISS CHARD—Alias Spinach Beet, Asparagus Beet, "Chicken's Delight." Leaves may be cooked for "greens" like spinach. The stalks may be cut lengthwise and crosswise, the quartered pieces then boiled and served in butter or milk dressing like asparagus. Grow plenty and feed surplus to the chickens. They like Swiss Chard and thrive on it. Don't dig up the root or cut off all the top. Pull off the outside stalks. Others will keep forming from heart of plant. Grows in hot weather when spinach lies down on the job. Stands a lot of freezing in fall and still keeps growing. Really a wonderful vegetable. Add it to your list. Pkt., 5c; oz., 15c; ¼ lb., 40c.

HOW TO GROW "LIVE BEETS"

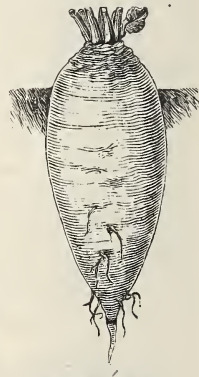
Culture. Plant any time from early spring to August. Most people make a mistake by not planting beets along in summer, as well as in spring. They come quickly, the small half-grown size being best for canning and fine for summer use also. An ounce of seed will sow 50 feet of row. Cover ¾ inch.

Mangels, Sugar Beets

Culture. Sow 4 to 6 lbs. to acre, in rows 24 inches apart. In good ground you can raise 30 to 40 tons per acre. Very valuable for feeding stock, especially milch cows. A mixture of mangels and sugar beets is good combination. Add carrots for dessert!



Golden Tankard



Sugar Beet

Prices: All Mangels, also **LONG'S** Special Mixture of Mangels and Sugar Beet. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 50c; 5 lbs., \$2.25; 10 lbs., \$4.00; prepaid. Ask for prices on larger lots.

V22. MAMMOTH LONG RED. Great yielder.

V23. GOLDEN TANKARD. Roots rather short.

V24. DANISH SLUDSTRUP. Ovoid shape; reddish-yellow; heavy cropper.

V25. GIANT HALF SUGAR.

V26. WANZLEBEN SUGAR BEET. The standard sugar beet. Special stock grown at Government Station in Idaho. Extra good seed. Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 60c.

LONG'S Special Mixture

V27. A well-balanced mixture of Mangels and Sugar Beet, for milk cows. Mixed by myself from our tested seed. Better than all Mangels or all Sugar Beet. Pkt., 5c; oz., 10c; ¼ lb., 20c; lb., 50c; 5 lbs., \$2.25; 10 lbs., \$4.00.

LONG'S Cabbage—Best Kinds for Home and Market

Culture: For early plants start seed in box, cold-frame or hot-bed. For main crop sow seed in garden. Transplant where wanted. Cabbage responds to very frequent cultivating and hoeing. Set early plants April and May. For winter use set plants in June.

PRICES: Except Copenhagen Market and Round Head, all at: Pkt., 5c; special pkt., 10c; oz., 25c. For larger lots, see page 22.

V28. WINNINGSTADT. Heads firm, slightly pointed, standard early sort, but good also for winter.

V29. EARLY JERSEY WAKEFIELD. Small, pointed head. Very early.

V30. ENKHUIZEN GLORY. About same season as Winningstadt, but head is round instead of pointed. Yields heavy crop and does well even on rather poor soil.

V31. COPENHAGEN MARKET. The earliest round headed cabbage. Runs Wakefield a close race for earliness; heads larger and very solid; stem short. While this is usually planted for early use and marketing, yet it is most excellent for winter use, set out later. Try some for winter as well as for early. Pkt., 10c; oz., 35c.

V32. SUREHEAD. Round head main crop variety for fall and winter.

V33. ALL SEASONS. So named because good for early or late. Heads round.

V34. LATE FLAT DUTCH. An old variety but still a favorite with many. Very large.

No Cabbage Plants by Mail.



V35. DANISH ROUND HEAD. (Short Stemmed Hollander.) One of the best main crop varieties. Heads very solid; good keeper. This is the main variety grown by large gardeners and shippers for fall and winter use. It's the standard best late cabbage. **LONG'S** special stock Danish grown seed. Pkt., 10c; oz., 35c.

V36. MAMMOTH ROCK RED. Large sure-heading red cabbage.

V37. SAVOY CABBAGE. Leaves beautifully crimped. Finest flavor.

V38. BRUSSELS SPROUTS. Miniature cabbages; grow closely on stalks. Oz., 30c.

CHINESE, or CELERY CABBAGE

V39. Tastes more like lettuce than cabbage or celery. Early plants often run to seed. Sow in June. Tie up like cauliflower to blanch. Oz., 35c; ¼ lb., 90c.

**LONG'S Copenhagen Market—Best Early Round Head**

It's growing in favor every year, not only as the best Early Round Head Cabbage, but also as splendid sort for winter, when planted a little later than the winter varieties. The dish-shaped leaves fold so tightly, and the heads are so solid, that it can be grown closer together than other kinds of equal weight. Heads often weigh 10 lbs.

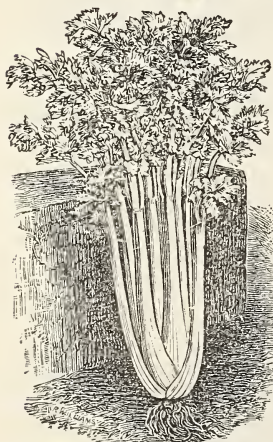
LONG'S Cauliflower

V38. EARLY SNOWBALL. Standard early and main crop variety.

V39. DRY WEATHER. Very large, and fine white heads. Resists drought well. Some gardeners prefer this to Snowball and grow it exclusively.

Price for either variety: Pkt., 10c; ¼ oz., 45c; ½ oz., 80c; oz., \$1.40; ¼ lb., \$5.00.

No Cauliflower Plants by Mail.

LONG'S Celery

Culture. Sow in protected bed; sow thin and cover lightly. Transplant in June. Ask your County Agent or Agricultural College for special information on celery growing.

V44. GOLDEN SELF-BLANCHING. One of the best early kinds for fall use. Pkt., 10c; ½ oz., 30c; oz., 45c; ¼ lb., \$1.50.

V46. GIANT PASCAL. The best late celery for winter use. May be blanched in garden, but to get those brittle sweet white stalks it

should be taken up, trenched or banked up in colors so as to grow new stalks from the old roots. Pkt., 10c; ½ oz., 25c; oz., 40c; ¼ lb., \$1.20.

V45. WHITE PLUME. Preferred by some to Self-Blanching. Fall variety easily blanched. Pkt., 5c; ½ oz., 25c; oz., 45c.

V47. CELERIAC, or TURNIP-ROOTED CELERY. Little known, but fine for seasoning meats and soups, also for salads. Grown exclusively for its turnip-shaped roots. Pkt., 5c; oz., 25c.

LONG'S Asparagus

Seed: Pkt., 10c; oz., 15c; ¼ lb., 30c.
Roots: 12 for 50c; 36 for \$1.00; 100 for \$2.40, prepaid.

LONG'S Best Four Carrots

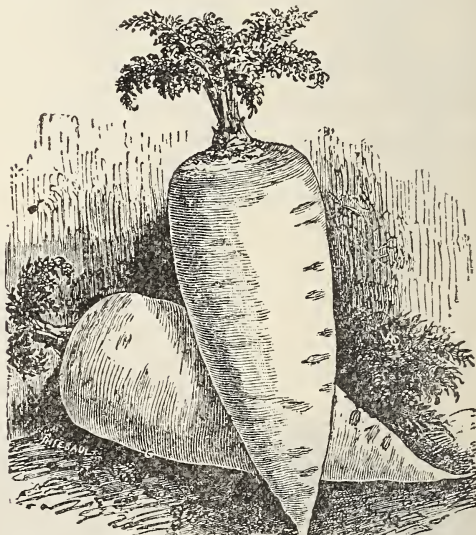
Prices: All at: Pkt., 5c; special pkt., 10c; oz., 15c. For larger lots, see page 22.

V40. OXHEART. Short but thick roots, bright orange flesh; best for heavy soil; good table sort and all right for stock also.



V41. DANVEES HALF LONG. Smooth medium length, orange color roots. A standard for table or for stock. Heavy yielder.

V42. CHANTANEY. Similar to Danvers but not quite so long; fine grained and sweet.



V43. GIANT WHITE BELGIAN. Grows one-third out of the ground, top somewhat green and portion under ground white. Heavy cropper and a good stock carrot.

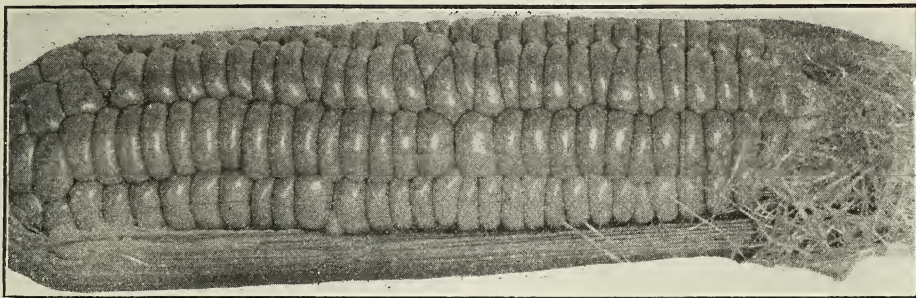
Parsley

Culture. Soak seed in tepid water a few hours before planting. Cover ½ inch.

V125. DARK MOSS CURLED. Fine for garnishing. Pkt., 5c; oz., 15c; ¼ lb., 50c.



LONG'S Acclimated SWEET CORN Seed



LONG'S Early "Peep O' Day"

V48. It's the early bird. Stands early planting and hustles right along as though knew how eager we are for first roasting ears of the season. Originally this variety was quite small, but my Colorado grower has been selecting for size, and you will find a decided improvement in size of this favorite early corn. A money-maker because people will pay almost any price for first roasting ears on the market. Size is not so important then as later in the season. Select, thoroughly matured, Colorado seed.

LONG'S Improved Golden Bantam

V49. If you plant just one kind of Sweet Corn, then make this the one. My Colorado strain has been improved the same as my Peep O' Day, by selection year after year, so that my stock now runs considerably larger than the regular Golden Bantam. Instead of just 8 rows, many ears will have 10 and 12 rows. One of the many good points about Bantam is that the silks or "whiskers" come out easily and leave a nice clean ear for cooking, while its special advantage over other varieties always has been and always will be its sweetness. In this it delivers the goods.

LONG'S New Giant Bantam

V50. Known also as Bantam-Evergreen, from crossing of these two splendid varieties, combining to a large degree the sweetness of Bantam and the size of Evergreen—a splendid combination. Try this in place of Evergreen, or plant part each.

LONG'S Golden Cream

Another addition to the Golden Bantam family. Cross between Bantam and Country Gentleman, having size, deep grains and zig-zag appearance of the latter, but more the color of Golden Bantam. A strong recommendation for Bantam is its being crossed with other kinds to improve them.

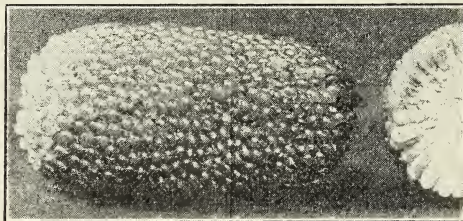
V53. **STOWELL'S EVERGREEN.** The standard big late Sweet Corn.

V54. **COUNTRY GENTLEMAN.** Tall, late, very sweet, with grains set zig-zag.

Several varieties discontinued. "Plant the best. Forget the rest."

Prices: All Sweet Corn at same price: Small Pkt., 5c; ½ lb., 15c; lb., 25c; prepaid. For larger lots see page 22.

LONG'S Japanese Rice Pop Corn



Ears are short and "stubby," but so "heavy sot" or big around that the yield is something astonishing. Each stalk has several good ears. Some ears have 32 rows. Grains very deep and slim. Hulls so thin and transparent that the Pop Corn just melts in your mouth.

Price: Pkt., 10c; ½ lb., 20c; lb., 30c.

Two Other Good Kinds

V56. **WHITE RICE.** Small pointed grains. Kind used by the Pop Corn wagons in cities. Pkt., 5c; ½ lb., 15c; lb., 25c; prepaid.

V57. **MAMMOTH WHITE, or SPANISH.** Extra large, sweet and tender. Great seller. Usually sells on cob in grocery stores. Extra early. Pkt., 5c; ½ lb., 15c; lb., 25c; prepaid.

EGG PLANT

Culture. Start plants in box or hothed. Do not set out until quite warm weather. Very tender. Ground should be rich.

V68. **BLACK BEAUTY.** An early improved variety. Pkt., 5c; ½ oz., 30c; oz., 50c.

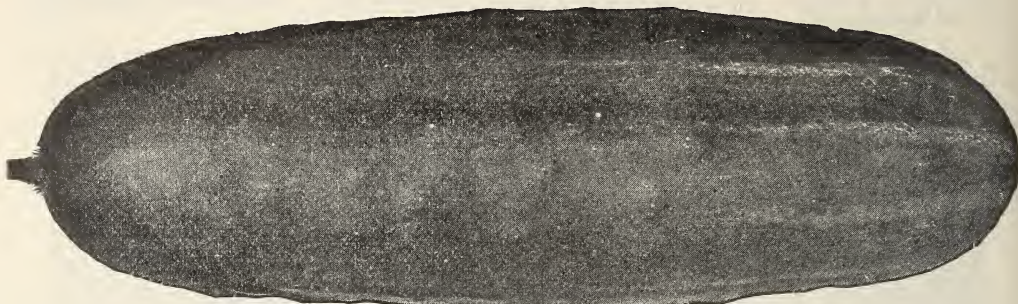
NO PLANTS

Am not fixed up to supply Egg Plant plants this season.



MUSTARD

V123½. **WHITE.** Pkt., 5c; oz., 10c; ¼ lb., 30c.
V123½. **OSTRICH PLUME.** Leaves long, ruffled and curved. Cook it like spinach. Pkt., 5c; oz., 10c; ¼ lb., 30c.

LONG'S Cucumbers—Best Pickling and Slicing Kinds

Culture. Plant (May and June) in hills a few feet each way. Most varieties are good for pickles when small or will do for slicing if left to grow larger. Early Fortune is especially good for either pickling or slicing.

Prices: All CUCUMBERS at: Pkt., 5c; Special Pkt., 10c; oz., 15c. For larger lots see page 22.

V60. KLCNDIKE. Very early strain of white spine type with dark green skin.

V61. EARLY FORTUNE. Fine for pickles when small, and good slicer if allowed to grow to large size. Fruits very uniform.

V62. EARLY WHITE SPINE. An old favorite, still good.

V63. BOSTON PICKLING. Standard for pickles. Same as Boston Pickling.

V64. IMPROVED LONG GREEN. Always good.

V65. DAVIS PERFECT. So nearly perfect in shape that often brings extra price in the market. Very good.

V67. WEST INDIA GHERKIN. Small "cuc," 2 to 3 inches. Used for pickles. Seeds very small. Pkt., 5c; ½ oz., 15c; oz., 25c.

LONG'S Head Lettuce

Prices: All varieties LETTUCE (except V72) at same price: Pkt., 5c; Special Pkt., 10c; oz., 15c. For larger lots see page 22.

V70. IMPROVED HANSON. Good heading variety and may also be used as leaf lettuce when young.

V71. ICEBERG. Similar to Hanson. Crisp and tender. Fine as leaf lettuce also.

V73. BIG BOSTON. Popular market variety.

V74. MAY KING. Extra early.

V75. DENVER MARKET. Rather loose head; leaves light golden green, beautifully savoyed or crimped.

V76. EARLY PRIZE HEAD. Forms large loose head. Leaves crimped; tinged brownish-red. Tender, crisp and sweet.

V79. COS, or CELERY LETTUCE. Do not confuse with celery cabbage. It is one of the surest blanching varieties, of elongated or cone-shaped form. This is the Paris or self-folding strain of Cos. The outer leaves overlap so that the inner ones are blanched. A valuable addition to the lettuce family.

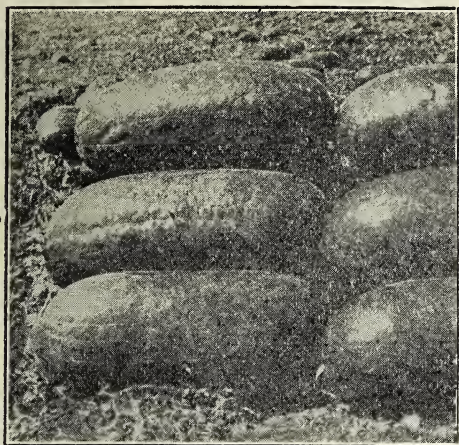
V72. LOS ANGELES. Known also as New York, or Wonderful. This is the variety that has been grown for years in California, both for local use and shipping. Now, Colorado has come to the front and is giving California a run for its money as a competitor in the eastern city markets. Growing of head lettuce on a large commercial scale in Colorado is carried on mostly in the mountains—way up high in the cool localities, which furnish ideal weather conditions for heading. From the beginning of this new Colorado enterprise I happened to get in right with some of the big growers, and as my seed proved true and very satisfactory, they have about cleaned up my stock of Los Angeles before this catalogue goes to print. Hope to have plenty for all next year. Pkt., 10c; oz., 35c. Write for price on large lots. Possibly I can spare enough to help you out this season, but cannot fill many more 25 and 50 lb. orders.

LONG'S Leaf Lettuce

V77. BLACK SEEDED SIMPSON. Grows quickly, making fluffy loose bunch of tender creamy leaves of delicate flavor. Fine.

V78. GRAND RAPIDS. Makes large compact bunches of light green leaves with fringed edges. The kind to grow in hothouses and hotbeds or coldframes. Splendid for open garden also.

LONG'S "Lovely 'Leven" Spencer Sweet Peas. \$1.10 worth for 85c; \$2.60 worth for \$1.75. See page 3.

LONG'S Water Melons

Kleckley's Sweet or Rocky Ford

LONG'S "Favorite Four"

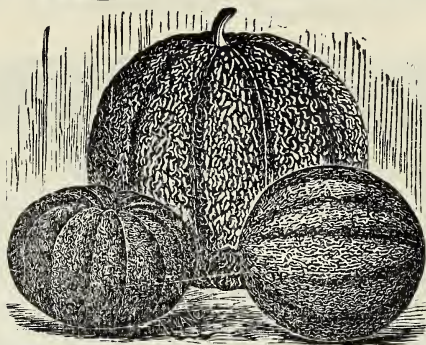
From a large list, many of them all right for the South, but not very desirable for our section, I have selected these four as "Best for the West."

V92. KLECKLEY'S SWEET. The skin is dark green, flesh bright scarlet, ripening close to the skin. Seeds lie close to rind, leaving a large solid heart which does not crack open when ripe. The scarlet flesh is sweet and sugary and of such texture that it leaves no strings of pulp whatever in eating. Is so exceptionally good that I feel it should head any list of melons offered. Pkt., 5c; large pkt., 10c; oz., 15c.

V93. TOM WATSON. Similar to Kleckley's Sweet, but still larger, and firmer, standing shipping and handling the best of any first-class melon. The rind is thin but tough; flesh bright red, delicious, sweet and satisfying. Pkt., 5c; large pkt., 10c; oz., 15c.

V94. ICE CREAM. Fine, very sweet, early melon for home or home market. Will not stand rough handling or shipping. Pkt., 5c; oz., 10c.

V95. COLE'S EARLY. Black seeded early variety. Pkt., 5c; oz., 10c.

LONG'S Musk Melons

V80. ROCKY FORD. The original, well-known, green meated strain. Pkt., 5c; large pkt., 10c; oz., 15c.

V83. POLLOCK No. 10-25, SALMON TINT. The latest and best improvement on the Rocky Ford cantaloupe. This is the one you find almost altogether now on the market, of the shipped-in cants. Heavily netted; cuts with golden center, shading to emerald green near the rind. Pkt., 10c; oz., 15c.

V85. EMERALD GEM. Small, early salmon flesh melon, fine grained and sweet, but poor Keeper. Pkt., 5c; large pkt., 10c; oz., 15c.

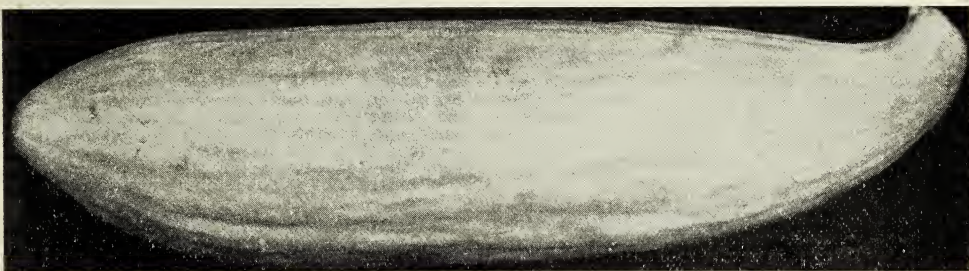
V86. BURRELL'S GEM. Larger, longer and firmer than Emerald Gem, and good when well ripened. Rather too late for most of my customers. Pkt., 5c; large pkt., 10c; oz., 15c.

V89. HONEY DEW. Large late melon that ripens after being picked and stored, if season too short for maturing in field. Will keep a long time after being picked. Prolongs the melon season a number of weeks. Green flesh. Pkt., 5c; large pkt., 10c; oz., 15c.

V90. GARDEN LEMON. As name indicates, very small, but prolific. Used for pickles and preserves. Pkt., 5c; oz., 20c.

V84. COLORADO CITRON. Looks like watermelon but used for preserves. Pkt., 5c; oz., 15c; ¼ lb., 35c.

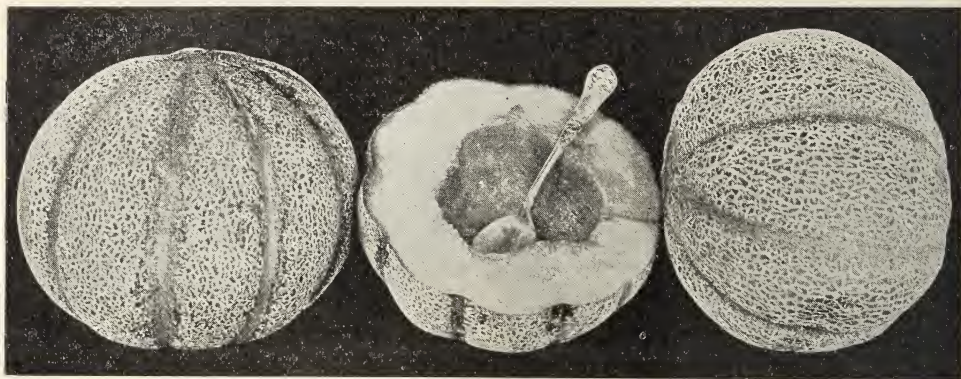
For larger lots, see page 22.

**Grow Your Own Bananas!**

V88. Here's another musk melon that seems to be appreciated more from year to year. Is not a new variety, but may be new to some of you. Is called the Banana muskmelon, since its shape resembles a banana, as you will note in this photo I had taken

of a sample brought in by Mr. Selby, another good customer out east a few miles. Not all resemble so closely the banana. Shapes vary, but this is the general type. They sometimes grow quite large, up to 28 or 30 inches long. Does not take a great stretch of the imagination to credit this melon with the flavor as well as shape of a good banana. Pkt., 5c; large pkt., 10c; oz., 15c.

LONG'S GREELEY WONDER MUSK MELON



LONG'S Greeley Wonder Melon—"Sweet as Honey"—Sure "Yum-Yum"

How time flies! Doesn't seem like nine years since I was up around Greeley, Colorado, looking over my seed crops there, just in the melon season.

On the ranch of my good friend, G. J. Hafendorfer, I ran across a musk melon that I'd never seen before. Never heard of such a melon. Never believed there could be such a melon. Hardly believed it after seeing and sampling it liberally.

It was so large, so sweet and luscious, and yet so extremely early that I felt like Uncle Hiram at the circus, who, seeing the giraffe, declared: "Gawsh-all-hemlock, there hain't no sich animule!"

Sez I to myself, sez I: "Here's something I must get for my customers." Asked "Haf" where he got this melon, and what he called it. Then came another surprise. He didn't know where it came from, and it didn't have any name. Said it was originated some years before by a Greeley gardener, but no one seemed to know just to whom the honor belonged. Greeley gardeners had been growing it for some years, getting the seed from each other, but it had never, to their knowledge, been grown anywhere else. (Some called this the Lansdale, others referred to it as the Steele melon.)

As for its origin, the plot thickens, the more I try to follow it. Up to date I have heard of four different Greeley old-timers who each claim the distinction of originating this truly wonderful melon.

However, this is not the important point. Nor is the next point I shall mention important, but I'm just human enough to feel proud of the fact—and maybe get chesty and brag a little about it—that I myself took this in hand, named it Greeley Wonder, and was the first seedsman to offer it outside the Greeley district. In fact, I hollered about it several years before anyone else in the business sat up and took notice. But, as the merits of Greeley Wonder have become known, the demand has increased by leaps and bounds. Last year there was what you might call a landslide for it. Greeley Wonder just about had the right of way wherever it came in competition with other musk melons and cantaloupes.

You'll just have to sample a good ripe Greeley Wonder, to know exactly what it's like, but this description may help some: It's a big, almost round, melon, as shown above,

usually heavily netted. As usually grown, each melon weighs from 4 to 6 pounds, but good growers pick them up to 8 and 10 and even 12 pounds. The flesh is salmon colored and very sweet. One slice calls for another.

Ordinarily, to get earliness we must sacrifice either size or quality, or both. To get size and quality we must be content to wait until later in the season. But the wonderful thing about this melon is that it has all the splendid qualities I have mentioned, and to top it off, is extra early, coming in ahead of the well-known, smaller, Rocky Fords and many others. Think what this means for home or market! You get your melons when people are on tiptoes, waiting for the first home-grown ones to show up. Market gardeners please their customers, and cash in at a good price before Jack Frost gets a look-in, and everybody is happy.

Greeley Wonder does have one fault. Seems like nothing can be just perfect, you know. It is not tough enough to be a long distance shipper. It keeps a few days in good shape, but must be handled with care. This, however, is not serious for the home garden or for marketing within 100 miles or so. Greeley growers ship and truck thousands of these melons to the Denver markets.

Greeley Wonder is a shy seeder, and the great trouble has been to get sufficient good seed. As the introducer of this melon, it has been my ambition to supply only the best seed. I'm better fixed this year than ever before, for I placed large contracts with several of the best growers for select seed. One thing that may give Greeley Wonder a black eye is the fact that a good deal of the seed that will be offered has been saved from the leavin's, after the main crop has been marketed, often from immature, frosted melons.

Two years ago Greeley Wonder sold for \$4 a pound, and the supply ran short at that. Last year I sold it at \$3 a pound, and now I've finally gotten enough grown at a more reasonable figure, so I can give you this select seed for \$2 a pound, and it's sure worth it. Step right this way and get your genuine, honest-to-goodness Greeley Wonder melon seed. Don't crowd! I think there's enough for all. How many?

V91. Price: Pkt., 10c; oz., 25c; ¼ lb., 75c; lb., \$2; 3 lbs. for \$5.50; 5 lbs. for \$9, prepaid.

Greeley Wonder "Endurance Test"

Perhaps I've been too conservative in telling of the keeping qualities of Greeley Wonder melon. That it does stand some hard knocks was proven when I brought a few of these melons from Greeley, three of which were later photographed in Boulder for the illustration I use.

That was several years ago. I drove "Henry" to Greeley, picked up two crates of Greeley Wonders at Hafendorfer's ranch, then hit the trail for Wellington, where I had an invitation to eat supper with my friend, I. T. Earl. Got a late start that afternoon and took a cross-country road, new to me, over very rough landscape. Not a house or speed cop in sight for miles, so I told Henry to go to it, for I didn't want to miss that supper! The way those melons and I bounced and jounced about was something fierce, yet the melons kept several days after arriving in Boulder.

Hey! You Men from Iowa!

Shake! I'm from Iowa myself. Say, do you remember the melons we used to grow back in old I-o-way? Often planted them in the cornfield, you know, so as to hide the patch. Well, along in the fall we would go out to a given point, look cautiously around, and if the coast was clear, count so many rows east, then follow a row so far south until we came to a "clearing" in that forest of earful corn. And, Oh, Boy! Didn't those melons taste "dee-licious"?

I suppose we really have better varieties now, but somehow none taste quite like they did some 30 or 40 years ago. But in selecting from many varieties my list of water melons and musk melons, I have tried to round up the ones that "take you back home" and taste as sweet and luscious as we still think those melons tasted. "Have another slice. We'll cut this one also."



Well, Well, Here's Another Nameless Melon!

In some ways this melon is a good deal like Greeley Wonder, and makes a pretty good running mate for it, especially for market gardeners. It is a big melon, giving Greeley Wonder a run for its money as to size. Strange to say, it also is early. The quality is right good, too, though I'll take Greeley Wonder for mine, if can't have both.

That's so, I forgot to tell you where I got on to this melon and why I have no name for it. Well, it's this way: Mr. Bert Andrus—a crackerjack gardener out near Valmont, a few miles east of Boulder, and a strong booster for Tried and True seeds—grows Greeley Wonders, lots of 'em, every year. But he has also been growing this melon, finding it fits in well with the other in selling his trade.

For a number of years Bert and his brother Jim, another good gardener and patron of mine, have been growing this, but never were sure just what variety it is.

Jim told me last fall that it seemed to him like one he used to grow back east, called the Bay View, Bay Window, Bay Horse, or Bay something or other. It may be the Bay View. Anyhow a ripe patch of these luscious melons makes a mighty fine view.

It is valuable, especially to the market gardener, on account of being tougher skinned and a longer keeper than Greeley Wonder. When selling from the wagon a gardener can recommend the buying of both kinds, as both are mighty good, the Greeley Wonder for immediate use and the other to lay aside for a later feast, thus avoiding the possibility of a melon famine until next trip.

For the present, just call this the **Nameless** melon and we will know what you mean. If you order just one, make Greeley Wonder the one, but try this also, if have room. Pkt., 10c; oz., 20c; ¼ lb., 60c; lb., \$1.75.

LONG'S High-Grade Tested Onion Seed



LONG'S Mountain Danvers

Special Improved Strain

V103. Over on the Western Slope, way up over 6,000 feet, there was a man with an idea 23 years ago. This man believed he could develop an Onion that would yield well and mature perfectly in his section, where onion growing had been given up on account of the short season. This man made good. By selecting and re-selecting he finally "built" Mountain Danvers.



For years Mountain Danvers onion made a great record as a flat to medium globe, but not uniform in color or type. Then my friend, A. L. Franklin, took it in hand and by years of selection brought it up to an ideal globe of unvarying golden yellow color. The bulbs are as sound as baseballs and almost as perfect in shape. Necks thin; few or no scullions.

LONG'S Improved Mt. Danvers is extra early, often being ready for market before main crop varieties come on, when it brings much higher prices. It is also one of the best main crop kinds, keeping and shipping especially well.

LONG'S Improved Mt. Danvers insures a crop in many localities where season is short and where ordinary kinds would not make good. Yet it is also meeting with much favor in lower altitudes. In some localities it does not attain as large size as the Southports and other globes, while in others it has been grown to weigh a pound, record yields of 600 sacks to the acre being made under ideal conditions over on the Western Slope where this onion originated. Pkt., 10c; oz., 30c.

Except where noted, all ONION SEED at: Pkt., 5c; Special Pkt., 10c. For larger lots, see page 22.

LONG'S Ohio Yellow Globe

V106. The Ohio Yellow Globe has proven a sure cropper and large yielder, and is among the earliest to ripen. It's a mild onion of true globe shape, but bottom flatter than the Southports; neck very small. Oz., 25c.

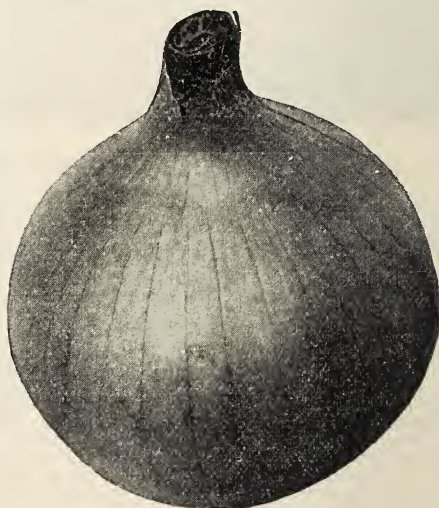
LONG'S Yellow Flat Danvers

V96½. Medium size Yellow Onion, used largely for growing Onion Sets. Oz., 25c.

LONG'S Red Wethersfield

V99. An old red variety of the flat type, very popular in the South and does well in our section, though the Red Globe is now taking first place. Most Red Sets are grown from Red Wethersfield seed. Oz., 25c.

LONG'S Select Prize-Taker



V96. The big yellow variety, acclimated from the popular Spanish Onion. Flesh white, and milder than many other varieties. Takes full season to mature. Oz., 25c.

LONG'S White Silverskin



V102. (Also called White Portugal and White Danvers.) Produces good medium size bulbs. Is early, mild and long keeper. The standard for growing White Onion Sets. Also planted largely for bunching and pickling onions. If for pickling the seed should be sown very thick to prevent bulbs becoming too large. Oz., 30c.

For larger lots, see page 22.

LONG'S Ideal White Globe

CRYSTAL-LIKE SKIN

GLOBE OF FINEST QUALITY



V97. Just what you may have been looking for in an ideal globe. Pure white, long keeping onion that matures fairly early. Oz., 30c.

LONG'S Brown Australian

V100. Very solid onion of light brown color; matures early; keeps well. Color not uniform. Oz., 20c.

LONG'S Early Barletta

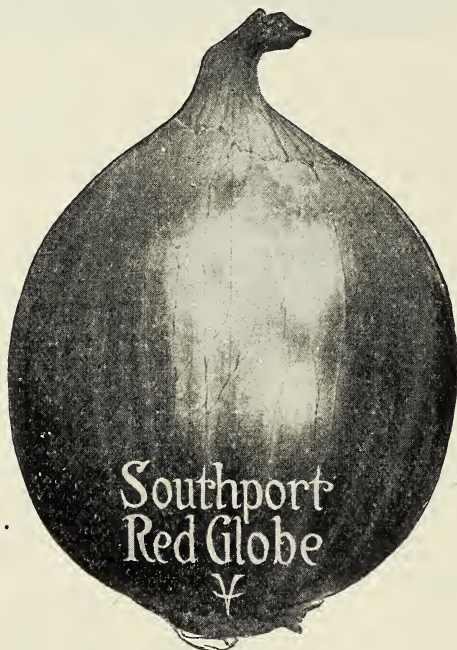
V101. An early white variety used for pickling. Plant very thick. Oz., 30c.

LONG'S Mountain Danvers Special

(Mountain-Grown Seed)

This is the original type of the popular Mountain Danvers onion. It is flatter than Long's Improved, but otherwise very similar and will produce an excellent crop. The color runs true golden yellow. Crop matures early. Bulbs are firm and good keepers. This seed, of strong germination, was grown from good bulbs, though not so rigidly selected as my Improved strain. For ideal globe shape, plant Long's Improved. But this regular strain costs less, and will prove quite satisfactory for general use. It is also very good indeed for growing sets, or for planting in July or August to leave in the ground over winter for early spring green onions, as explained in Garden Secrets. Price for Mt. Danvers Special: Pkt., 7c; oz., 22c; 1/4 lb., 66c; 1b., \$1.88; 5 lbs. for \$7.77.

LONG'S Southport Red Globe



V104. Grown from carefully selected bulbs of the popular market variety, large Red Globe—ideal type, deep rich red color. Splendid for the home garden also. A Delta (Colo.) customer writes: "I want some more of your select Colorado-grown Red Globe onion seed. Best I ever had. Runs true to color and type, with thin neck; matures well here and is heavy yielder." Oz., 25c.

LONG'S Southport Yellow Globe

V105. A good running mate for my select Colorado-grown Red Globe. Highest grade seed, grown only from carefully selected bulbs true to type and color. Oz., 25c.

"Your dahlia seed sure grew fine. I will have about 100 plants."—Mrs. Ada Stewart, Stewart, Wyo.

LONG'S Colorado-Grown "Hand-Polished" Onion Sets

That's no joke. These sets are actually hand-polished as they are rubbed by hand to remove all the dirt, roots, tops and any other trash.

For a succession of fresh Green Table Onions, plant sets at different times, from early March until July.

Large Dry Onions for fall and winter use are easily raised from sets. Costs more than to plant the seed, but returns are quicker, and most of the tedious hand labor of thinning and weeding is obviated. Use the smaller size sets for growing large bulbs. Plant hazel or tiny size, not the larger unless you have to, as the smaller sets are cheaper even at higher price per quart and make better onions.

Prices for Regular Sets

RED or YELLOW.	2nd Zone	3rd Zone	4th Zone	5th Zone
Quart	\$.22	\$.24	\$.25	\$.27
4 Qts.....	.75	.79	.97	1.05
8 Qts.....	1.35	1.43	1.59	1.75
16 Qts.....	2.40	2.56	2.88	3.20
32 Qts.....	4.30	4.62	5.26	5.90
WHITE.				
Quart25	.26	.27	.29
4 Qts.....	.90	.94	1.02	1.10
8 Qts.....	1.55	1.63	1.79	1.95
16 Qts.....	2.80	2.96	3.28	3.60
32 Qts.....	5.25	5.57	6.21	6.85

LONG'S "Tiny" Onion Sets

The smallest of all Onion Sets, about the size of a large garden pea. You don't need to set them, just sow in a row like peas and cover about one inch. They make early green onions a little later than regular sets and much earlier than seed.

LONG'S Tiny Sets are especially valuable for growing regular onions for winter use. Being so small you get all the way from 600 to nearly 1,000 Tiny sets to the quart, and practically every set will make an onion, the crop maturing earlier than onions from seed.

Will have a limited supply of Tiny sets, in Yellow and White. Price for Yellow: Pint, 30c; quart, 50c. Price for White: Pint, 35c; quart, 60c; prepaid.

LONG'S Hazel Size Sets

(In Yellow and White Only.)

Hazels are just like other bottom sets except that they run smaller in size. The smaller size not only gives you about twice as many sets to the quart as you get when buying ordinary size sets, but also gives you a better set, for this reason: A good many sets of the size usually sold, will send up a seed stalk. This does not matter so much if onions are grown for early green onions, but if wanted for mature dry bulbs the seed stalk causes a hard, woody center.

But with Hazel Size Sets you rarely if ever have any trouble with seed stalks. They make the finest green onions and the best of matured bulbs, and the crop is ready for market before onions from seed come in.

Prices for Hazel Sets

(About 300 to the Quart.)

YELLOW.	2nd Zone	3rd Zone	4th Zone	5th Zone
Quart.....	\$.32	\$.34	\$.35	\$.37
4 Qts.....	1.10	1.14	1.24	1.30
8 Qts.....	1.70	1.78	1.94	2.10
16 Qts.....	3.20	3.36	3.68	4.00
32 Qts.....	5.80	6.12	6.76	7.40
WHITE HAZELS.				
Quart.....	\$.35	\$.36	\$.38	\$.40
4 Qts.....	1.20	1.24	1.32	1.40
8 Qts.....	1.90	1.98	2.14	2.30
16 Qts.....	3.30	3.46	3.78	4.10
32 Qts.....	6.00	6.32	6.96	7.60

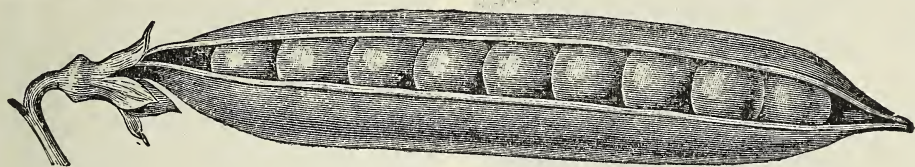
(No Red Hazels. Bags weighed in.)

Our sales of Hazel and Tiny sets are increasing greatly from year to year, as our customers learn of their real value.

1,000 Onion Sets for \$1.00

For \$1.00 we will mail you, prepaid, fully 1,000 Hazel sets, white or yellow. You can grow a pile of onions from this dollar lot.

Popular, Profitable Peas for Particular Planters



***LONG'S* Large, Long, Luscious Laxtonian. Early, Too.**

V406. This big, long podded variety is ready for use as early as the small American Wonder, and only a little later than Alaska. Pods are long but vines are short. Peas are large, wrinkled, sweet, running 7 to 10 in a pod. Vines require no staking; rows may be planted close, to economize space; peas easily gathered by the handful, and the shelling of a mess is a short job, on account of the size of pods and peas. Our sales of Laxtonian have increased from year to year so that now we sell almost as much of this variety as all the others together. Pkt., 10c; ½ lb., 20c; lb., 35c.

***LONG'S* Montana-Grown Early Giant Pod "Blue Bantam"**

V408. Nothing small or "Bantam" about this pea but the vines, which run 12 to 16 inches according to season, soil, water and cultivation. But the PEAS! Fine big pods, usually well-filled, with large and luscious peas. So like Laxtonian in every way that it's a toss-up as to which is the better. You can't lose if you bet on either one. Pkt., 10c; ½ lb., 20c; lb., 35c.

***LONG'S* Best Two Varieties for Second Early**

V418. DWARF TELEPHONE. A second early pea with short to medium vine, but pods and peas large like Laxtonian and almost as large as Tall Telephone. One of the best. Pkt., 10c; ½ lb., 20c; lb., 35c.

V420. DWARF DEFIANCE. This is one of the newer varieties of great merit. Same season as Dwarf Telephone, but pods a little larger and vines more rugged and a little taller, though not classed as a tall variety. Peas large and of splendid quality. Pkt., 10c; ½ lb., 20c; lb., 35c.

V410. ALASKA. Early smooth pea, standing early planting, but hard to sell after the larger sorts come in a little later. Pkt., 5c; ½ lb., 13c; lb., 20c.

V412. AMEER, or GIANT ALASKA. Almost as early as Alaska, but much larger and better; is also smooth seeded, and will stand early planting. Pkt., 10c; ½ lb., 15c; lb., 25c.

V420. DWARF CHAMPION. Second early; medium vine, large pods and peas. In the Dwarf Telephone class. Pkt., 10c; ½ lb., 15c; lb., 25c.

V422. EDIBLE POD. Dwarf Gray Sugar. Pods as well as peas are cooked, like snap beans. Pkt., 10c; ½ lb., 15c; lb., 25c.

V426. EVERBEARING (Bliss). A later sort that continues bearing for a long time, though most other mid-season kinds do also. Pkt., 10c; ½ lb., 15c; lb., 25c.

V428. GRADUS. Called also Early Telephone. Tall vines, large pods and peas. Does better on some soils than others. Pkt., 10c; ½ lb., 15c; lb., 30c.

V432. LITTLE MARVEL. Early; vine short; pods not large but always packed tight with peas of good quality. Good yielder. Pkt., 10c; ½ lb., 15c; lb., 25c.

V434. STRATAGEM. Good mid-season kind. Pkt., 10c; ½ lb., 15c; lb., 25c.

V436. TALL TELEPHONE. Very tall; pods very large. Pkt., 10c; ½ lb., 18c; lb., 30c.

All PEAS prepaid at these prices.

For larger lots, see page 22.

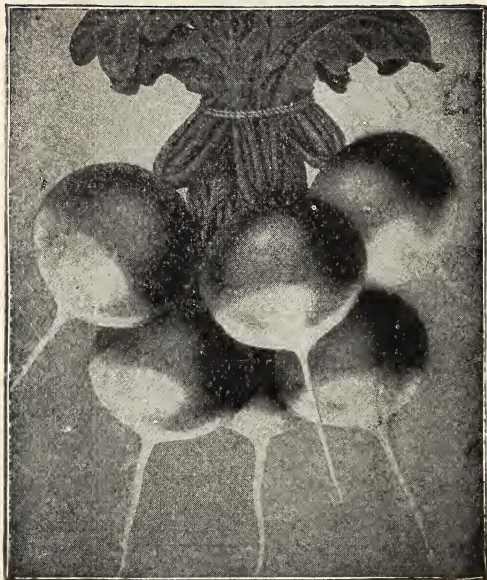
***LONG'S* TRIED AND TRUE—BEST FOR YOU**

"Be not the first by whom the new is tried, nor yet the last to cast the old aside," might well apply to garden peas. There are now so many greatly improved varieties of recent introduction, yet thoroughly tried and proven of merit that it is wise to stick to them a while, rather than chase after every "novelty" offered at higher prices.

And as for casting the old aside, it's time we should ditch some of the older kinds and plant the newer and better ones.

Take Alaska, for instance: Alaska is a small podded sort, still of some value because it will stand extremely early planting. It is especially valuable for canning factories because the crop is nearly all ready at one time. But for the home and market garden it should be planted sparingly, if at all, because the large and luscious kinds, such as Laxtonian, Blue Bantam, etc., are so much better when they come in, which is very soon after. Ameer is larger and better than Alaska, also smooth seeded, standing early planting and only several days later.

LONG'S Crisp Radishes for Home and Market



Culture. Radishes must grow quickly to be tender. Sow a few early—just take a chance on them—and then sow every few weeks all spring and summer, to have fresh, crisp radishes whenever wanted.

For larger lots, see page 22.

V135. EARLY SCARLET TURNIP, WHITE TIP. Quick growing variety, very attractive for bunching account rich red color, except bottom, which is white, as illustrated above. Pkt., 5c; oz., 10c.

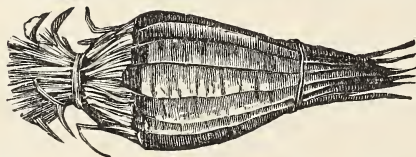
V137. GLASS, or CINCINNATI MARKET. Corresponds to Icicle, but color is red. The best long red. Pkt., 5c; oz., 10c.

V136. FRENCH BREAKFAST. An old favorite of the half long type. Color red, shading to white at base. Soon gets pithy and should be sown often to provide supply crisp radishes. Pkt., 5c; oz., 10c.

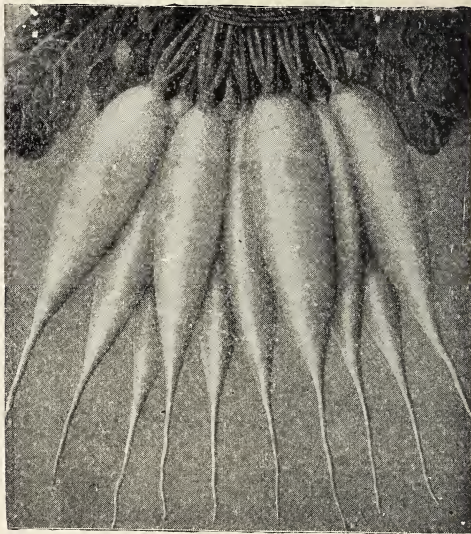
V140. WHITE STRASBURG. Similar to Icicle but larger and later. Pkt., 5c; oz., 10c.

V141. CRIMSON GIANT. Here's a hummer! Round, bright red, growing quickly to bunching size, but will keep right on growing to large size without losing its crispness. I plant Crimson Giant and Icicle from early spring until September and we have fresh, crisp radishes all summer and until late in fall. Select seed. Pkt., 5c; Special Pkt., 10c; oz., 15c.

LONG'S Vegetable Oyster



V176. Good substitute for oysters. Sow where may remain until late in fall, or may be left in ground and dug as needed in winter. Pkt., 5c; Special Pkt., 10c; oz., 25c; ¼ lb., 75c.



V136. WHITE ICICLE. Not in a thousand years could you think of a better name for this popular radish. The name just fits. Is one of the earliest long radishes, good for sowing every few weeks from early spring until September. My stock of this is very fine. Pkt., 5c; Special Pkt., 10c; oz., 15c.

V142. CHINESE ROSE (Winter). Pink, oval or half long. Pkt., 5c; oz., 10c.

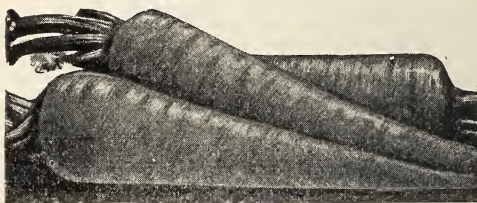
V143. WHITE CHINESE (Winter). Very large, mild and juicy. Extra fine. Pkt., 5c; oz., 15c.

V144. BLACK SPANISH (Winter). Long, almost black. Pkt., 5c; oz., 10c.

V139. MIXED RADISH. Good mixture of all sorts but Winter. Pkt., 5c; oz., 10c.

For larger lots, see page 22.

LONG'S Parsnips



Culture. Sow early in deep mellow soil, pressing soil after planting.

V126. HOLLOW CROWN. Pkt., 5c; oz., 10c; ¼ lb., 25c; lb., 70c.

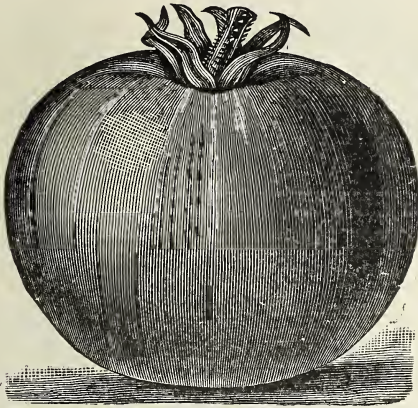
LONG'S Pumpkins

For Larger Lots see page 22.

V132. SMALL SUGAR. The good old yellow pie pumpkin. Pkt., 5c; oz., 15c.

V133. LARGE FIELD. Pkt., 5c; oz., 10c.

V134. KING OF MAMMOTHS. Largest of all pumpkins, yet good for pies as well as for stock. Pkt., 10c; oz., 15c.

LONG'S Select Tomatoes

Except where noted, all TOMATO SEED at 5c for small pkt.; Long's special pkt., 10c.

V154. EARLIANA. Is somewhat small, but earliest of all. Select seed. $\frac{1}{2}$ oz., 20c; oz., 40c; $\frac{1}{4}$ lb., \$1; lb., \$3.50.

V155. BONNY BEST. Bright scarlet. Few days later than Earliana, but larger and smoother. Good for early, medium and late. $\frac{1}{2}$ oz., 20c; oz., 40c; $\frac{1}{4}$ lb., 90c; lb., \$3.50.

V156. CHALK'S EARLY JEWELL. Deeper red than Earliana, larger and better for main crop as well as good for early. $\frac{1}{2}$ oz., 20c; oz., 35c; $\frac{1}{4}$ lb., 85c; lb., \$3.25.

V157. LIVINGSTON'S BEAUTY. Medium early, smooth, prolific, purplish-red. Standard main crop variety. $\frac{1}{2}$ oz., 20c; oz., 35c; $\frac{1}{4}$ lb., 90c; lb., \$3.30.

V162. PONDEROSA. Largest of all tomatoes, sometimes rough, few seeds. Pkt., 10c; $\frac{1}{2}$ oz., 25c; oz., 45c; $\frac{1}{4}$ lb., \$1.20.

V163. NEW JOHN BAER. Similar to Chalk's Jewell, yet better, for medium early or main crop. Highly recommended by our Agricultural College and County Agent, after several years' trial. Pkt., 10c; $\frac{1}{2}$ oz., 20c; oz., 40c; $\frac{1}{4}$ lb., \$1; lb., \$3.50.

V164. YELLOW PEAR. Small pear-shaped tomato for preserving. $\frac{1}{2}$ oz., 20c; oz., 40c; $\frac{1}{4}$ lb., \$1; lb., \$3.50.

V165. GROUND CHERRY. Also called Strawberry, or Husk Tomato. Each fruit in husk. Sweet and fine for preserving or pies. $\frac{1}{2}$ oz., 25c; oz., 50c.

LONG'S Early Red Head

V160. Many new varieties of tomatoes have been introduced, but few indeed have made good as has the Red Head.

Red Head is a "Red that is Red," real early tomato of medium size, almost round, solid and smooth and of good flavor. Sets heavy, and keeps right on bearing during the whole season. As I said last year, some vines are so loaded that it looks like a bucket of tomatoes had been poured around the plant.

I'm not so lop-sided as to claim this is the only tomato. My list contains other right good kinds, Best for the West.

But Red Head is a dandy and a money-maker. Best of all, my seed is all northern grown, acclimated, and, I believe, will produce ripe tomatoes still earlier than seed grown in other sections.

Pkt., 10c; $\frac{1}{2}$ oz., 60c; oz., \$1; $\frac{1}{4}$ lb., \$3.

V159. NEW BURBANK. This was widely advertised last season, but I did not wish to offer until had tried it out. Gave the originator's stock a good trial and found it possesses merit, though think was boomed too much, as being decidedly earlier and better than some others. Is good, and is early, and yields well. In fact, is a mighty good one, but Red Head kept right up with it, and in some ways seemed to still keep the lead. I saved a nice lot of the Burbank seed, and offer at 10c for pkt. of 200 seeds or more; $\frac{1}{2}$ oz., 50c; oz., 90c.

No Tomato Plants by mail.

LONG'S Peppers—Full of Life and "Pep"

Culture. Peppers hard to germinate. Do not blame yourself, your hotbed or the seed if you fail to make them come through. Start them indoors or in hotbed. Soil must be very warm. Transplant after frost.

V127. RUBY KING. Standard sort large sweet pepper. Pkt., 5c; $\frac{1}{2}$ oz., 25c; oz., 45c.

V128. CHINESE GIANT. Larger than Ruby King; mild. Pkt., 10c; $\frac{1}{2}$ oz., 35c; oz., 65c.

V129. LONG RED CAYENNE. Pkt., 5c; $\frac{1}{2}$ oz., 20c; oz., 40c. "Full of pep."

V129 $\frac{1}{2}$. RED CHILL. Small, red, very hot. Pkt., 10c; $\frac{1}{2}$ oz., 25c; oz., 45c.

V130. PERFECTION PIMENTO. Sweetest and mildest of all peppers. Flesh very thick. Pkt., 10c; $\frac{1}{2}$ oz., 30c; oz., 60c.

V131. NEAPOLITAN. Earliest of all red mild peppers; fruit grow upright. Pkt., 5c; $\frac{1}{2}$ oz., 20c; oz., 40c.

V131 $\frac{1}{2}$. NEW ROYAL KING. Similar to Ruby King but larger and flesh much thicker. Superior to Ruby King. Pkt., 10c; $\frac{1}{2}$ oz., 30c; oz., 50c.

LONG'S Squash

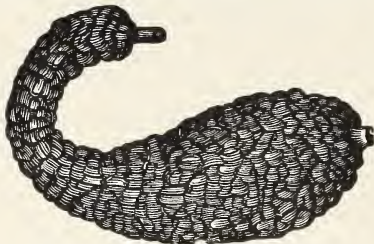
All SQUASH: Pkt., 5c; Special Pkt., 10c.

V149. TRUE HUBBARD. The good old green, solid, hard shell, long keeping, fine flavored kind that melts in your mouth. *LONG'S* Special stock. Oz., 15c.

V150. SWEET POTATO. (Pike's Peak or Sibley.) Large oval squash, tapering at blossom end. Skin olive-green. When baked, resembles sweet potatoes. Oz., 15c.

V151. DELICIOUS. Varies in form and color, but always good. Oz., 15c; ¼ lb., 30c; lb., \$1.

V152. WHITE BUSH SCALLOPED. For summer use. Oz., 15c; ¼ lb., 30c; lb., \$1.00.



V153. GIANT CROOKNECKED. Best of summer squashes. Oz., 15c; ¼ lb., 30c; lb., \$1.

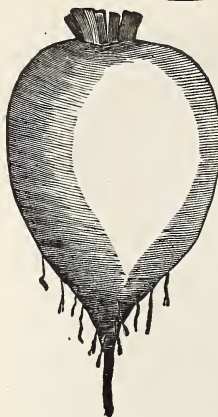
V154. BANANA. At last, here's your Banana squash. Have tried for three years to get enough of this seed to list in catalogue, but failed, for one cause or another. Think I have about enough now to go around this season. As name implies, this is a long squash. When baked, the thick golden meat is indeed delicious. Pkt., 10c; oz., 20c; ¼ lb., 60c; lb., \$2.00.

LONG'S Spinach

V145. BLOOMSDALE, SAVOY LEAVED. One of the best early varieties. Pkt., 5c; oz., 10c.

V146. MONSTROUS-LEAVED VIOFLAY. Vigorous growing early kind with large, thick dark green leaves. Pkt., 5c; oz., 10c.

V148. BOULDER "TREE" SPINACH. Seed so light that a little goes a long ways. May be cut as other spinach, but if allowed to

LONG'S Turnips

Culture. Turnips do best in rich, loose soil, but thrive under less favorable conditions. May be sown from early spring until August. For main crop for winter use, sow in July.

I would sow sparingly of the Milans, because the White Egg and Purple Top White Globe are also good for early, more attractive, and better yielders.

V170. EXTRA EARLY PURPLE TOP MILAN. The earliest of all turnips. Medium size. Somewhat flat.

All at: Pkt., 5c; Large Pkt., 10c; Oz., 15c.

V171. EXTRA EARLY WHITE MILAN. Similar to V170, but pure white.

V172. PURPLE TOP STRAP LEAVED. Good for early or main late crop. Grows to large size.

V173. WHITE EGG. Quick growing, egg shaped, pure white variety, for spring or summer growing. Good size.

V174. PURPLE TOP GLOBE. Similar to White Egg in shape but with purple top. Superior to the old Purple Top Strap, which is flat.

V174½. AMBER GLOBE. Another good globe about same shape as White Egg, but color nearly yellow. Seems to do especially well in the mountains.

For larger lots see page 22.

LONG'S Best Rutabaga

V175. AM. PURPLE TOP. Color purple above and yellow under the ground. Flesh yellow and solid; few leaves and small neck. Pkt., 5c; large pkt., 10c; oz., 15c.

grow it will attain a height of 6 feet. You can pick the leaves off at any stage of growth and will find them mild and tender. Pkt., 5c; oz., 20c; ¼ lb., 50c.

V148½. NEW ZEALAND SPINACH. Here's your hot weather spinach. Don't need to worry about its running to seed. Leaves very fleshy, and brittle when cooked. Each plant makes a bush several feet in diameter. Seeds large and hard. Should be soaked 24 hours before planting. Should not be planted until ground is warm. Thin to 20 inches or so apart in good ground. Pkt., 10c; oz., 15c; ¼ lb., 50c; lb., \$1.25.

LONG'S Leeks

788. BROAD LONDON, or LARGE AMERICAN FLAG. This is a strong-growing variety, producing large thick stems of sweet flavor when properly blanched. Pkt., 5c; oz., 25c; ¼ lb., 75c; lb., \$2.25.

LONG'S Kohl-Rabi

Culture. Sow in rows outdoors about May 1st. Thin to 8 inches. Cultivate like cabbage.

Kohl-Rabi is grown for its turnip-shaped bulb, which is formed above the ground. The bulb should be used while young and tender. Set plants 8 in. apart.

786. EARLY WHITE VIENNA. The best for table use. Pkt., 5c; oz., 20c.

LONG'S Herbs—All 10c Pkt.

*Caraway
*Catnip
*Coriander
*Dill—Oz., 15c
*Sage—½ Oz., 30c

*Fennel
*Lavender
*Marjoram
*Rosemary
Savory

Endive

One of the best and most wholesome salads for fall and early winter use. Also used in soups. Sow in June or July in rich ground. Thin or transplant to 6 or 8 inches apart. A few weeks before wanted for the table, tie up the bunches to blanch. Or, may be blanched by throwing brush or some such covering over the plants.

WHITE CURLED. The variety most used. Pkt., 5c; oz., 15c; ¼ lb., 35c.

BROAD LEAVED. Plain, broad leaves. Pkt., 5c; oz., 15c; ¼ lb., 35c.

Rhubarb, or Pie Plant

You can "grow your own pies" by starting the plants from seed, or getting the roots, the latter method gaining time. Sow the seed in spring, and transplant where wanted the following spring. Pkt., 5c; oz., 20c.

RHUBARB ROOTS. Good live roots that will take hold and make good. Each, 20c; 3 for 50c; 8 for \$1.00, prepaid.

Sudan Grass Seed

True Colorado dry land grown Sudan. Small lots at 2 lbs. for 25c, prepaid. 25 lb. lots, not prepaid, at 6c lb. Add postage if to be mailed. Ask for prices on larger lots.

Kale, or Borecole

Used for greens. Sow in May and cultivate like cabbage. May also be sown in September and carried over winter where grown, with light protection, for early spring greens. Stands a good deal of cold and frost. Pkt., 5c; oz., 15c.

Okra, or Gumbo

The green pods are used in soups, to which they impart a rich flavor. Does better in the south than with us in Colorado. Very popular in the south. Sow in open garden but not until ground is warm. Thin to 10 inches. Pkt., 5c; oz., 15c; ¼ lb., 40c.

Mammoth Sunflower

The well-known Giant Russian Sunflower that makes such a tremendous growth and bears a lot of good seed; good for poultry food. The whole plants are now used a great deal for silage. Pkt., 5c; lb., 20c; prepaid. 5 lbs. at 16c; 10 lbs. at 15c; prepaid.

"I Told You So!"

"I told you so!" For years I've been talking myself hoarse telling you that no matter how low the price of vegetables any season, that is no reason why you should not keep right on growing them. On the contrary, it's a mighty good reason why you should be sure to plant even more than usual of varieties that were grown the previous season so plentifully that the bottom dropped plumb out of the market.

Why? Well, just sit down and think hard for ten minutes, along this line: Vegetables are perishable, and no matter how great an overproduction this year, it cannot affect the supply a year from now. Get that into your head, for a starter. Next, just consider human nature. If a gardener gets stuck and can't sell his crop of a certain item, onions, for instance, he gets sore on that item and never wants to see an onion again. Not all, for some are wise, but I'm talking about the average fellow. At any rate, he will most likely plant none, or a smaller acreage, of that item, and go in for something else on which he has not lost money.

What's the result? You've guessed it. With the smaller acreage, the country over, and no stock carried over, the next crop is light, and up go prices. Now don't understand me to say it will always work out this way, but I've watched it for years and it's the rule rather than the exception.

What about onions and cabbage a year ago? What about these vegetables now? Over on the Western Slope onion growers dumped carloads of onions last year. Could not sell at any price. As I write these lines I have a letter before me from a Delta grower who says he has just sold his big crop at \$4.00 per 100 lbs., not even sorted. He is one of the wise ones. Moreover, he plants some onions every year and finds his average price to the good. My suggestion is: Plant about what you can handle of the various kinds of vegetables every year, regardless of prices at time of planting. Never drop out on account of the price being low, but plant a little extra such things of which there was an overproduction the previous season. Try this for five successive seasons and see how it works out.

Consider, also, onion sets. Last year there was a tremendous acreage and bumper crop. Onion sets could hardly be given away by the growers towards the end of the season. Government reports now indicate that the 1921 acreage was greatly reduced. Also, the yields were much lighter than in 1920. Result: "Do your Christmas shopping early" on onion sets, for there may be a shortage later on. At least there will not be large lots dumped on the market at cheaper prices. When large onions are high, then onion sets are in greater demand, so the demand this year will likely be much greater than last.

Maggotbate

A powder to be sprinkled in row at planting time, and applied several times after plants are up, to prevent ravages of maggots in radish and other root crops. Use pound to 250 feet. 2-lb. pkg., 35c; 8 lbs. for \$1.00; postage extra.

"My daughter has the most beautiful bed of Long's pansies that you ever saw."—Mrs. Jas. Ruddy, Greybull, Wyo.

LONG'S Larger Lots at Lower Prices

Everything except peas, beans and sweet corn is priced prepaid, parcel post. Bags and envelopes weighed in, beyond 4th zone. In ordering peas, beans and sweet corn, add for each pound: 1c for 2nd zone; 2c for 3rd; 4c for 4th; 6c for 5th; 8c for 6th; 10c for 7th; 12c for 8th. I will pay whatever additional postage may be required above these amounts.

BEANS

Brittle Wax and Fordhook Lima. 5 lbs. at 26c; 10 lbs. at 23c; 25 lbs. at 20c.

Burpee's Stringless Green Pod. 5 lbs. at 22c; 10 lbs. at 20c; 25 lbs. at 18c.

Davis White Wax and Pencil Pod: 5 lbs. at 16c; 10 lbs. at 15c; 25 lbs. at 14c.

All other Garden Beans: 5 lbs. at 20c; 10 lbs. at 18c; 25 lbs. at 16c.

Add postage on beans. See above.

BEETS

Early Wonder: $\frac{1}{4}$ lb., 35c; lb., \$1.00; 5 lbs. at 90c.

All other Beets: $\frac{1}{4}$ lb., 25c; lb., 75c; 5 lbs. at 65c.

CABBAGE

Copenhagen Market and Danish Round Head: $\frac{1}{4}$ lb., 80c; lb., \$2.40; 5 lbs. at \$2.20.

All other Cabbage: $\frac{1}{4}$ lb., 70c; lb., \$2.00; 5 lbs. at \$1.80.

CARROT

White Belgian: $\frac{1}{4}$ lb., 25c; lb., 70c; 5 lbs. at 60c.

All other Carrot: $\frac{1}{4}$ lb., 30c; lb., 80c; 5 lbs. at 70c.

SWEET CORN

All varieties: 5 lbs. at 19c; 10 lbs. at 17c; 25 lbs. at 16c. Add postage on Sweet Corn. See top of page.

POP CORN

Japanese Rice: 5 lbs. at 21c; 10 lbs. at 19c. All others same price as Sweet Corn. Postage extra.

CUCUMBER

All except V67: $\frac{1}{4}$ lb., 35c; lb., \$1.00; 5 lbs. at 90c.

LETTUCE

Los Angeles: $\frac{1}{4}$ lb., \$1.10; lb., \$3.30.

All other Lettuce: $\frac{1}{4}$ lb., 50c; lb., \$1.40; 5 lbs. at \$1.30.

MUSK MELON

Rocky Ford, Pollock 10-25, Emerald Gem, Burrell's Gem, Banana, Honey Dew,—all these at: $\frac{1}{4}$ lb., 35c; lb., \$1; 5 lbs. at 90c.

Others as priced on Melon pages.

WATER MELON

Kleckley's Sweet and Tom Watson: $\frac{1}{4}$ lb., 30c; lb., 55c; 5 lbs. at 75c; 10 lbs. at 70c.

Ice Cream and Cole's Early: $\frac{1}{4}$ lb., 25c; lb., 70c; 5 lbs. at 65c.

ONION

Brown Australian: $\frac{1}{4}$ lb., 50c; lb., \$1.25; 5 lbs. at \$1.15; 10 lbs. at \$1.10.

Imp. Mt. Danvers and Southport White Globe: $\frac{1}{4}$ lb., 90c; lb., \$2.60; 5 lbs. at \$2.50; 10 lbs. at \$2.40.

So. Red Globe, So. Yellow Globe and Prize-taker: $\frac{1}{4}$ lb., 65c; lb., \$1.75; 5 lbs. at \$1.60; 10 lbs. at \$1.50.

White Silverskin and Barletta: $\frac{1}{4}$ lb., 75c; lb., \$2.25; 5 lbs. at \$2.15; 10 lbs. at \$2.10.

Ohio Yellow Globe, Yellow Danvers and Wethersfield: $\frac{1}{4}$ lb., 55c; lb., \$1.50; 5 lbs. at \$1.40; 10 lbs. at \$1.30.

PARSNIP

Hollow Crown: $\frac{1}{4}$ lb., 25c; lb., 75c; 5 lbs. at 70c.

PEAS

Laxtonian, Blue Bantam, Dwarf Telephone, Dwarf Defiance—The "Big Four": 5 lbs. at 7c; 10 lbs. at 25c; 25 lbs. at 23c.

Alaska: 5 lbs. at 15c; 10 lbs. at 14c; 25 lbs. at 13c.

English Wonder, Gradus, Tall Telephone: 5 lbs. at 24c; 10 lbs. at 22c; 25 lbs. at 20c.

Ameer, Dwarf Champion, Edible Pod, Everbearing, Little Marvel, Stratagem: 5 lbs. at 21c; 10 lbs. at 20c; 25 lbs. at 18c.

Postage extra. See top of page.

PUMPKIN

Sugar: $\frac{1}{4}$ lb., 30c; lb., 75c; 5 lbs. at 65c.

Field: $\frac{1}{4}$ lb., 25c; lb., 65c; 5 lbs. at 55c.

King of Mam.: $\frac{1}{4}$ lb., 40c; lb., \$1.20.

RADISE

Crimson Giant and Icicle: $\frac{1}{4}$ lb., 35c; lb., 90c; 5 lbs. at 80c.

All other Radish: $\frac{1}{4}$ lb., 25c; lb., 75c; 5 lbs. for 65c.

RUTABAGA

Am. Purple Top: $\frac{1}{4}$ lb., 30c; lb., 80c; 5 lbs. at 70c.

SPINACH

Bloomsdale and Viroflay: $\frac{1}{4}$ lb., 20c; lb., 45c; 4 lbs. at 40c; 10 lbs. at 35c. Others as priced.

SQUASH

Hubbard, Sweet Potato: $\frac{1}{4}$ lb., 40c; lb., \$1.20; 5 lbs. at \$1.10. Others as priced.

TURNIP

White Milan and Purple Top Milan: $\frac{1}{4}$ lb., 35c; lb., \$1; 5 lbs. at 90c.

Purple Top Strap, Amber Globe: $\frac{1}{4}$ lb., 25c; lb., 70c; 5 lbs. at 60c.

White Egg and Purple Top Globe: $\frac{1}{4}$ lb., 30c; lb., 80c; 5 lbs. at 70c.

ASPARAGUS ROOTS. 12 for 50c; 36 for \$1.00; 100 for \$2.25, prepaid.

RHUBARB ROOTS. 3 for 50c; 8 for \$1.00, prepaid.

No Other Roots or Plants

As explained in Short Talks, in back of catalogue, I am not in a position to offer by mail any other vegetable roots, or plants, such as cabbage, tomato, etc.

New Annual Hubam White Sweet Clover

This has been talked about so much the past year that hardly needs much description. Grows 6 feet high or more, from spring sown seed, maturing its seed same season. Great soil builder. Sold from \$5.00 to \$10.00 lb. last year. Cheaper now, but still high. Will be lower next year. Oz., 20c; $\frac{1}{4}$ lb., 50c; lb., \$1.60; prepaid.

LONG'S Progressive Everbearing Strawberry Plants



Strawberries for Thanksgiving

One of the many things a number of us Boulder folks had to be thankful for last Thanksgiving day was that we could go out in our gardens and pick fine, red ripe, fresh strawberries for dinner, thanks to the Progressive variety and the mild November weather.

What would you think of a family keeping a flock of hens that would lay only a few weeks every year, then loaf around and ask to be waited on the rest of the time?

I'll say that family needed a course in efficiency—or the hens needed it. Sure, we don't want such birds; we want "Everbearing" hens.

Well, how about strawberry plants? The ordinary kinds produce only a few weeks a year. They may be bluffed out by Jack Frost and skip a whole season, yet demand room and attention all year.

But Everbearing Strawberries—now you're talking! They bear the first year, from July until late in fall. Next spring they are on the job again, right along with the "Seldom-bearing" kinds, and continue the good work until October, or even November some late seasons.

What if they do freeze in the spring? That's not serious. You don't lie awake nights worrying about this. It simply delays the first picking a little.

For a small garden, worked by hand, you can plant closely, about a foot apart in the row, and rows 24 to 30 inches apart. Get in" sometimes sold as Everbearing.

The Progressive variety is exceedingly rugged and productive, adapting itself to varied conditions. So far, it has proven the best all-

around variety within reach of the average pocketbook. The foliage is strong and healthy and tall enough to cover most the blossoms, protecting them from frosts. The stems are stout and numerous, bearing large clusters of berries. The berries are large and of excellent flavor.

Plant Early! Many make a mistake by ordering late. These plants are outdoors all winter and stand early planting, and do best if planted early. April is the best month in most sections. In normal seasons early April is best, and even the last of March is none too early some seasons. Time of planting varies, of course, according to your altitude and other local conditions. I stop shipping plants about May 20th. Order a while in advance. Give us time. I do not promise to ship orders any certain day, or "by return mail."

Prices lower than last year, but prospects, at time of writing this, are for better plants. Also, I believe I have worked out a plan of packing and mailing that will deliver the plants to you in fresher, better shape. In fact, I will guarantee to deliver them within 4th zone, in good live condition for setting out. If they do not arrive in such condition they are to be returned at my expense, and full price will be refunded. Shipments beyond 4th zone will be made at your own risk. I do not advise such long shipments. As the smaller the quantity, the more it costs us to handle, pack and mail them, and since 100 plants is as few as most families should have to make it worth while, I advise buying in lots of 100 or more.

Prices: 36 plants (smallest quantity we pack), \$1.00; 100 for \$2.20; 200 for \$4.00; 300 for \$5.50; 500 for \$8.50; 1,000 for \$16.00, prepaid within 4th zone. Safe delivery guaranteed.

LONG'S CERTIFIED MINNESOTA NO. 13 SEED CORN

Tried and True—Selected—"Equipped with Self-Starters"

This is the corn that leaped into the limelight here in Colorado a few years ago, and is being planted more and more, as its merits are discovered by still more farmers from year to year.

Minnesota No. 13 has moved the corn belt farther north and farther up the mountain side. It has put Colorado and Wyoming on the map as corn states. Minnesota No. 13 is the dual purpose corn—it produces an abundance of rich silage, or if left to mature, it usually outyields all other varieties that will also mature in our short seasons.

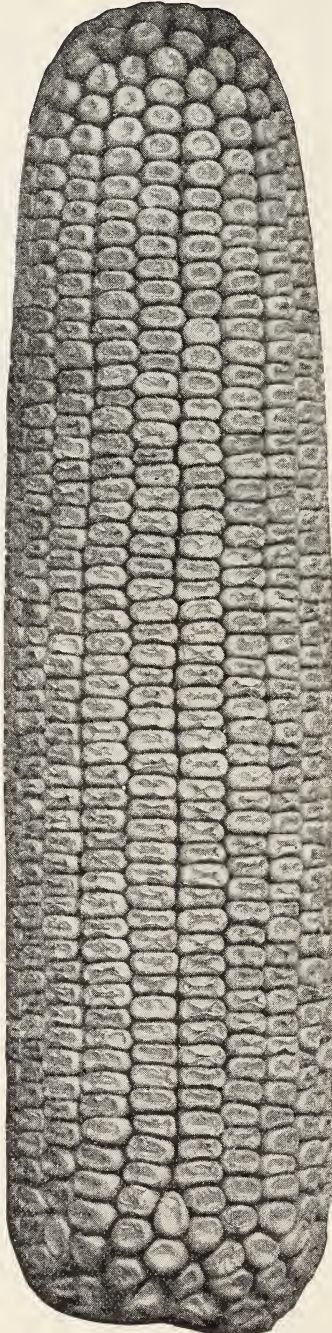
Minnesota No. 13 is not a fancy or show type, but it delivers the goods. Like the Swede's mule, it's "not very purty, but hal for strong." The ideal type, as described by the Minnesota Experiment Station answers this description:

Ears cylindrical, 8 to 8½ inches long, 6 to 6½ inches in circumference. Cob comparatively small, the average run of ears shelling 83% of corn, some records as high as 90% having been made. Kernels wedge shape with square shoulders at cap and tip, about twice as broad as thick, dented and slightly rough—only a suggestion of roughness, caps saucer-shaped and slightly wrinkled. Color rich old gold, bright and of good lustre but not shiny.

Owing to the popularity of **Minnesota No. 13**, and the demand for the seed of this valuable variety, a good deal of seed has been sold that is not true to name, or, if true, was grown in warmer sections, and not acclimated to our high altitude conditions. Therefore, I have adopted the plan of selling only such seed of **Minnesota No. 13**, as I know to be true Colorado grown stock. I know the seed that was planted to grow my supply; know the farmer who grew it, under special contract for me; have kept it under my personal observation from start to finish. It is this seed that I sell you, every pound certified, over my own signature.

GILFILLAN'S "PIONEER"

Until well into the season, possibly until June, I



can supply this special stock or strain of dry land grown, Minn. No. 13. I call it **Gilfillan's "Pioneer,"** because Mr. Gilfillan has been growing Minn. No. 13 in Colorado longer than any other seed grower I know of—ever since 1911. He has bred up a strain combining high yield, earliness, vitality and drought resisting to a marked degree. Eleven years' selection without irrigation has accomplished this.

Mr. Gilfillan claims—and backs his claim with the goods—to have improved his stock decidedly in earliness of maturity, drought-resisting, and size, which is going some. Speaking of the small cob weight, he told me the percentage of shelled corn obtained at times, but I'm afraid you might not believe it, though I do, because I know "Jack," as he is known to his friends. Down in Missouri they grow a certain variety of white corn primarily for the corn cob pipe factories, the essential part of the ear being a fine big cob, while the corn itself is thought of more as a by-product. That's all right if you are growing corn for making pipes, but Jack has no market for the cobs, so did his derndest to eliminate the cob—and came mighty near doing it!

Jack Gilfillan is a crank about selecting his seed corn. Every ear has to pass his personal inspection and approval. I've known times when customers were howling for his seed, but he would not let another pound go out as seed corn, though he had plenty that would germinate all right. Like myself, he cares more for his reputation than a little extra money.

Small lots at 2 lbs. for 25c, prepaid within 4th zone. Larger lots, not prepaid: 25 lbs. at 8c; 50 lbs. at 6c; 100 lbs. at 5c; 200 lbs. at 4½c; 400 lbs. at 4c; 500 lbs. at 3½c; 1,000 lbs. or over at 3c. Every bag certified. No charge for bags.

White Australian Corn

Extra early flint, for short seasons. Improved strain. Prices same as for Minn. No. 13.

Some New and Extra Good Things for 1922

Not all on this page are new, but some are so especially good that I am giving them a front seat in the Flower Seed Department.



Long's Everlasting Flower

Very ornamental in garden, easily grown from seed sown outdoors. Particularly valuable for winter decoration of vases and everlasting bouquets. Will really keep for years. May be washed with soap and water to brighten up. An old-fashioned flower that is "coming back" strong now.

Important. Cut the flowers when partly open, just as shown in this picture. Don't put them in water but hang them up dry in dark. Place also some on shelf in dark closet, so blossoms and part of stem hang over edge of shelf. This gives curve and charm to the stems when placed in vase.

Golden Globe. Large, golden yellow.

Silver Globe. Chaste silvery-white.

"Christmas Red." Very popular for Christmas decorations. Some florists and gardeners make a bunch of money selling this at Christmas time.

All Kinds Mixed. These and other colors all in one mixture.

Prices: Any color, or all mixed: Pkt., 10c; 3 for 25c.

Double Bachelor Button

Mrs. Templeton, of Fort Collins, Colo., flower lover and most successful gardener, brought to my attention the exquisite blue of this double type. So many who have seen it growing in the Templeton gardens have wanted to know where they could get the seed, that I arranged with my flower seed growers to supply me for the coming season. Anticipating a demand for other colors I secured this double form in rose-pink and all colors mixed, also.

F01. Double Bachelor Button. Blue.

F02. Double Bachelor Button. Rose-Pink.

F03. Double Bachelor Button. Mixed.

Price for either color or mixed: Pkt., 10c; 3 for 25c; $\frac{1}{4}$ oz., 50c.

Annual Mallow (Lavatera)

F015. A showy annual, about 2 feet high, producing large cup shaped shrimp-pink flowers. Sow in May and thin to 10 inches. Pkt., 10c; $\frac{1}{4}$ oz., 25c.

New African Marigolds

Maybe you saw the orange variety blooming in your own garden last summer, for I sent out several thousand trial packets with early orders, though did not have enough to go around. These belong to the tall growing, double "pin-cushion" class of the popular marigold. My seed was grown by a specialist, who has bred these two colors up the nearest to perfection that has so far been attained. Most of them come double, though a few come single, but of unusual shape, so that some admirers like the single even more than the double. Plants grow about 3 feet high from seed sown outdoors after ground is warm. Easily transplanted. Should be thinned to 12 inches in good ground, for they make big bushes. They bloom and bloom from midsummer to hard frosts.

F05. Orange Prince. A beauty. Deep golden orange. Immense blossoms.

F06. Lemon Queen. Equal to Orange Prince, but a soft lemon yellow, making a fine contrast. Price for either color: Pkt., 10c; $\frac{1}{4}$ oz., 50c.

New California Poppies

"Persian Rug" Mixture

I made up this name, getting the suggestion from my grower, Mr. L. D. Waller, one day when we were discussing the new creations Mr. Waller has originated and included in this marvelous mixture. In his enthusiasm Mr. Waller said: "Why, when all those colors are in bloom—red, yellow, chrome, pink, copper-red, claret, purple,—it makes you think of a beautiful Persian rug."

F09. "Persian Rug" Mixture. Pkt., 10c; $\frac{1}{4}$ oz., 50c.

Double Annual Chrysanthemum

F011. Not the large kind grown in green-houses and so much in evidence at football games, but a smaller flowered variety that blooms in the open garden from seed sown in spring. Nice for garden display and good for cutting. Most of the flowers come double. Mixed colors. Pkt., 10c; $\frac{1}{4}$ oz., 25c.

Delphinium, Gold Medal Hybrids

F013. A perennial, blooming second year from seed, known also as the Hardy Larkspur. The plants are of vigorous habit, with large flowers on spikes two feet long, when well grown. Colors run from pale lavender to deep blue. Pkt., 25c.

Sea-Lavender (Statice)

F017. A companion for the better known and popular Gypsophila Paniculata (Baby's Breath). The latter is snow white, but Statice is blue. Doubtless you have seen this in florists' gardens. Like Gypsophila, it is used for combining with other flowers to give them a light, airy effect. May be dried for winter, also. Blooms second year from seed. Pkt., 10c.

Geraniums from Seed

F42. Our sales of geranium seed are increasing greatly, as customers discover how easily the plants are grown from seed, and what pleasing colors are found in our splendid mixture. Seed may be started indoors or out in the garden. Take up and pot the plants in fall. Pkt., 15c.

LONG'S Superb Giants of California Petunias

Petunia, Giants of California

Giant is right. Unless you have seen these monsters they will be a revelation to you when bloom in your garden next summer. The blossom shown here was picked from my garden. There were hundreds more, fully as large and charming. Not all come so large, but all are good size and beautiful.

Culture

Use mellow soil, add one-third fine sand if to be had, sift all through fine screen. Fill pot or box to within 2 inches of top. Water to give good soaking. After soil evenly wet, sow seed thinly and evenly over surface. Some use damp pin point to place seeds firmly in soil but not covered.

Do not cover the seed, unless with least bit of fine sand. Cover pot or box with pane of glass.

If in sun, place one sheet paper over glass in daytime only. Keep soil just damp, but avoid excessive moisture. Remove glass soon as seed germinates. Transplant to other boxes, inch apart, to produce strong plants, or the seedlings may be set in garden if grown slowly and not too thick. Too much moisture and heat may cause the tiny plants to damp off.

Once started, these giant petunias do well in most any garden soil and location. Rich ground and good culture, with plenty water, will of course produce the largest blooms, even larger than this picture.

Seed may also be started in hot bed or garden. Cheese cloth may be used on seed bed.

Scarlet Runner Bean

Here's something that is not known and appreciated as much as it merits. It is one of the best quickening growing climbing annuals for shade. The red blossoms are very ornamental and, best of all, the green beans are splendid for use as snap beans. Few people in our country think of the Scarlet Runner Bean as anything else but an ornamental climber. But in England it is one of the favorite green snap beans.

And as for rapid growth it is a wonder. One Wyoming customer said last year that she thinks now it was the Scarlet Runner Bean which Jack found so helpful in making his getaway from the giant. Price: Pkt., 5c; ½ lb., 20c; lb., 35c; prepaid.

The large ones often measure 4 to 4½ inches across. And such wonderful colors and markings! Then, too, some are delightfully ruffled and frilled. Unfortunately this variety produces very, very little seed, making the seed as precious as gold dust. However, the seeds are so fine that you should get a nice bunch of plants from a packet. Pkt., 25c.



Advertising An Advertisement!

The back outside cover page of a magazine or catalogue is supposed to be the most valuable advertising space of all, and it is customary to use this space for featuring something of unusual merit. So I have given this over to my Colossal Zinnias this season, as you will note. But am calling your attention to it—advertising the advertisement, so to speak—for the reason that one season I used the outside cover page for sweet peas, and a lady wrote asking if I had quit handling those wonderful sweet peas. Said she had looked all through the catalogue and could not find any sweet peas listed. So I had to tell her to look on the back of the catalogue. Therefore, "I'll tell the world," to look on this last page. My, my! Such gigantic, dazzling, Zinnias. If you've not seen them, then you have a treat in store for next summer, if you give them a trial. Give 'em full sun, richest of ground, frequent cultivation, and lots of water. They'll do the rest.

LONG'S Tried and True Flower Seeds**LONG'S** Pot Marigold

(*Calendula*.) Also called Scotch Marigold. Grows readily from seed planted outdoors. May also be grown in pots indoors. It blooms continuously if kept picked.

Orange King. Enormous orange flowers, perfectly double.

Lemon Queen. Like Orange King but clear lemon-yellow. Very durable.

Nankeen. Large double cream flowers slightly flushed apricot. Unique.

Prices: Any these three fine kinds: Pkt., 10c; 3 for 25c.

F13. MIXED CALENDULA. Pkt., 5c; ½ oz., 20c.



"Say It With Flowers"

**Japanese Morning Glory**

F72. Colors run from white through all shades of blue and red; from palest pink to darkest reds and purples. Many flowers streaked, mottled and bordered. The leaves are also very ornamental, ivy-like and heart-shaped, green and marbled. Climbers. Plant in warm location. Pkt., 10c; oz., 30c.

LONG'S Ageratum (Floss Flower)

Dwarf, compact plants, fine for borders, edgings or pots.

F1, Blue; F2, White; F3, Choice Mixed. Price for any kind: Pkt., 5c; ¼ oz., 25c.

LONG'S Sweet Alyssum

Exceedingly popular border plant, useful in many ways in any garden. Puts the "finishing touch" to beds, walks, etc. Snow white; comes quickly from seed, and blooms continuously.

F4. LITTLE DORRIT. Similar to Little Gem but still more compact and a finer variety. Pkt., 10c; ¼ oz., 25c; ½ oz., 40c.

F4½. LILAC ALYSSUM. Same as white, but lilac color. Pkt., 10c.

LONG'S Amaranthus

Graceful plants with ornamental foliage producing a striking effect as a background or centerpiece.

F5. All Kinds, Mixed. Pkt., 5c; ½ oz., 15c.

LONG'S Antirrhinum (Snapdragon)

F7. LONG'S SPECIAL MIXTURE. Largest and finest kinds in rare variety of colors, for cut flowers or garden display. Pkt., 10c.

Separate Colors Snapdragon. White, Pink, Yellow, Red. Pkt., 10c.



Alyssum



Snap Dragon



Canterbury Bell



Four o'Clock

LONG'S Bachelor's Button

One of the favorite flowers in grandmother's garden and still as popular as fifty years ago. Also called Blue Bottle, Ragged Sailor, Cornflower.

F8. CHOICE MIXED. Pkt., 5c; $\frac{1}{2}$ oz., 20c.

LONG'S Balloon Vine

F9. Hardy annual climber, producing white flowers and seed vessels that look like small balloons. Good for screens. Seeds hard and should be soaked 24 hours. Pkt., 5c; $\frac{1}{2}$ oz., 15c.

LONG'S Balsam (Lady Slipper)

Grows quickly from seed, producing large brilliant flowers. Also called "Touch-Me-Not." Great favorite with children.

F10 DOUBLE WHITE; F11 DOUBLE MIXED. Price for either: Pkt., 5c; $\frac{1}{4}$ oz., 25c.

LONG'S Calliopsis

F14. Bush plants 2 feet high, covered with showy flowers. Pkt., 5c; $\frac{1}{2}$ oz., 15c.

CALIFORNIA POPPY (See Eschscholtzia)

LONG'S Canary Bird Flower

F15. Rapid growing climber, 10 feet. Flowers canary yellow, and resembling a canary bird. Fine for porches, etc. Soak 24 hours. Pkt., 5c; $\frac{1}{2}$ oz., 20c.

LONG'S Candytuft

F17 PURE WHITE; F18 FINE MIXED. Pkt., 5c; oz., 25c.

GIANT HYACINTH-FLOWERED. New. Extra large and fine. Pkt., 10c.

LONG'S Canterbury Bells

Hardy biennials, blooming second year from seed. Plants 3 feet high. Flowers bell shaped, and many colors. Very showy. Sow from May to August.

F19. LONG'S SPECIAL MIXTURE. Single, double, and "cup and saucer" varieties; all mixed; very fine. Pkt., 10c.

LONG'S Hardy Carnations

Biennials. These lovely fragrant carnations are the most profuse bloomers of all the so-called pinks.

F20. MARGARET. Double flowers with lovely fringed petals; delightfully fragrant; wide range of charming colors. Extra fine. Pkt., 10c; $\frac{1}{4}$ oz., 35c.

LONG'S Celosia or Coxcomb

F22. OSTRICH PLUME. Feathered varieties mixed. Pkt., 5c; $\frac{1}{4}$ oz., 25c.

F23. CRESTED COXCOMB. Dwarf plants with bright red combs. Pkt., 10c.

LONG'S Cobaea Scandens

(Cathedral Bells)

F24. Rapid growing climber, 15 to 20 feet in a few months. Has lovely lilac bell shaped flowers. Plant seeds on edge. Pinching few inches off top of plant when 6 inches high or so will make it branch out and produce denser covering. Pkt., 10c; $\frac{1}{2}$ oz., 25c.

LONG'S Columbines (Aquilegia)

Early blooming hardy perennial with graceful long spurred flowers. Very showy.

F25. TRUE ROCKY MOUNTAIN COLUMBINE. The Colorado State flower, and most popular of all columbines. White center with blue petals. Pkt., 10c; $\frac{1}{4}$ oz., 40c; $\frac{1}{2}$ oz., 75c.

F26. MIXED COLUMBINES. Good variety of colors. Pkt., 10c.

LONG'S Early Giant Cosmos

Heretofore it has been necessary to list two strains of cosmos, the early with small flowers, and the late or giant flowering.

I now offer you this "2-in-1" strain, combining earliness with fine large flowers.

F27 WHITE; F28 PINK; F29 CRIMSON; F30 FINE MIXED. Your choice of any of these colors, or mixed: Pkt., 10c; $\frac{1}{2}$ oz., 25c.

LONG'S Cypress Vine

F31. Beautiful rapid growing climber with feathery foliage and star-shaped blossoms. Soak seed 24 hours in warm water. Pkt., 5c; $\frac{1}{2}$ oz., 20c.

LONG'S Double Daisy

The poet's favorite flower, perennial, blooming first year from seed. Very neat for borders.

F33 WHITE; F34 MIXED. Price for either: Pkt., 10c.

LONG'S Shasta Daisy

F35. SHASTA DAISY. Originated by Burbank. Large white flowers on long stiff stems, great bloomer, fine for cutting, perennial; roots may be divided after a few years and reset. Pkt., 10c.



California Poppy



Carnation



Cobaea Scandens



Celosia

LONG'S California Poppies

Blooms early and continuously from spring sown seed. Seeds itself after first year. Fine for beds or borders.

F36. GOLDEN WEST. Large yellow; the California State flower. **F37 WALLER'S CRIMSON,** the best fixed strain of carmine-crimson, extra fine. **F38 LONG'S SPECIAL MIXTURE,** grand mixture of best kinds and colors. Price, any kind: Pkt., 5c; ½ oz., 25c.

LONG'S "Forget-Me-Not"

F32. Hardy perennial and one of the daintiest of garden favorites. Blooms first year and better next. Color blue. Pkt., 10c; ¼ oz., 25c.

LONG'S Four o'Clock

F39. Good old-fashioned easy-to-raise flower, splendid for hedge, center or background. Mixed colors. Pkt., 5c; oz., 20c.

LONG'S Fox Glove

F40. Tall perennial with spikes of vari-colored and spotted tube-like flowers, blooming second year from seed. Pkt., 10c.

LONG'S Gillardia

F41. Compact bushy plant bearing large brilliant flowers. Fine mixed. Pkt., 5c; ½ oz., 25c.

LONG'S Geranium

F42. Perennial, blooming first year from seed if started early. Extra fine mixed. Pkt., 15c.

LONG'S "Satin Flower" (Godetia)

F43. Hardy annual about 18 inches tall, bearing many showy flowers of satiny texture in rich and varied colors. Does well in poor soil and somewhat shady places. Fine mixed. Pkt., 5c; ¼ oz., 25c.

LONG'S Curious Gourds

Don't overlook these for the children. Easily grown, rapid climbers, tender, sow after danger from frosts.

F44. NEST EGG. Grow your own nest eggs. Give the hen an inspiration. Plant this seed in poor soil lest you raise an ostrich egg. Pkt., 5c; ½ oz., 15c.

F45. DIPPER. Dippers are now so high that it might pay to grow your own dippers and be independent of the dipper trust. Pkt., 5c; ½ oz., 15c.

F46. MIXED GOURDS. Ornamental gourds, large and small, all shapes and colors. Many odd, fantastic varieties. Pkt., 5c; ½ oz., 25c.

LONG'S Gypsophilia

Graceful plants of light fairy-like growth, covered with tiny white flowers. In great demand for combining with sweet peas and other cut flowers. Note that there are two kinds, the annual and perennial.

F47. ELEGANS (ANGEL'S BREATH) ANNUAL. Blooms first year from seed. Not so dainty as the perennial. Good plan to sow both kinds this spring, so as to have a supply this year and next. Pkt., 5c; oz., 25c.

F47½. Same as F47 above, but dainty pink. Pkt., 10c.

F48. PANICULATA (BABY'S BREATH) PERENNIAL. Blooms second year from seed and increases in size of plants each year. The tiny white flowers on branched stems are so thick as to give the plant a white lace-like effect. A "perfect dream." Pkt., 10c; ½ oz., 25c.

LONG'S Heliotrope

F50. Perennial, blooming first year from seed. Choice mixed. Pkt., 10c.

LONG'S Double Hollyhocks

The modern double hollyhocks bear flowers as double and beautiful as the most charming rose. My double varieties in seed and plants are of the finest. Biennial.

F51. Extra fine mixture of double flowering kinds. Pkt., 10c; ½ oz., 25c.

SEPARATE COLORS DOUBLE HOLLY-HOCKS: **F52** White. **F53** Yellow. **F54** Red. **F55** Pink. **F56** Blush. **F57** Maroon. **F58** Black. Choice of colors: Pkt., 10c.

LONG'S Hollyhock Special

F59. SINGLE AND DOUBLE, MIXED. A gorgeous mixture of fine varieties from my trial grounds. Includes some of the charming fringed and ruffled sorts. Plant these liberally for backgrounds. Extra large package 15c; 2 for 25c.

See Plant Pages for Hollyhock Roots

LONG'S "Job's Tears"

F61. Curious ornamental grass with hard seeds used for beads. Pkt., 10c; ¼ lb., 25c.

LONG'S Japanese Hop

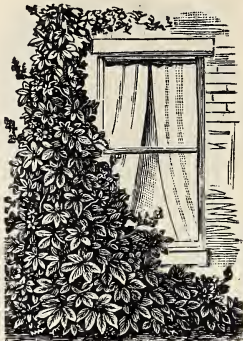
F62. A rapid growing climbing vine much used for covering unsightly objects and for shading windows and porches. Soak seed 12 hours. Pkt., 10c; ½ oz., 25c.



Mixed Gourds



Gypsophila



Japanese Hop



Marigold

LONG'S Annual Larkspur

F63. Dwarf Mixed. Pkt., 5c; $\frac{1}{2}$ oz., 25c.

F64. Tall Mixed. Pkt., 5c; $\frac{1}{2}$ oz., 25c.

LONG'S Scarlet Flax

F65. Slender plant with bright red saucer-shaped flowers. Very showy and easy to grow. Pkt., 5c; oz., 25c.

LONG'S Marigolds

F67. FRENCH DWARF. Mixed. Pkt., 5c; $\frac{1}{2}$ oz., 25c.

F67 $\frac{1}{2}$. "LEGION OF HONOR." Rich golden yellow flowers, marked velvety brown. Fine for borders and edging. Pkt., 10c; $\frac{1}{2}$ oz., 30c.

F68. AFRICAN TALL. Mixed. Pkt., 5c; $\frac{1}{2}$ oz., 25c.

LONG'S Mignonette

No garden is complete without this old-fashioned fragrant flower. Comes into bloom soon.

F69. LONG'S SPECIAL MIXTURE. Extra fine varieties mixed. Pkt., 5c; $\frac{1}{2}$ oz., 25c.

LONG'S Morning Glories

F70. TALL. Always popular for fences and screens, etc. Fine mixed. Pkt., 5c; oz., 20c.

F71. DWARF. Good for beds or borders. Pkt., 5c; oz., 25c.

LONG'S Mexican Fire Bush

F73. Also called Summer Cypress. The moss-like green foliage turns to deep carmine in fall. Makes inexpensive showy hedge. Pkt., 5c; $\frac{1}{2}$ oz., 25c.

LONG'S Scabiosa

F74. Also known as Pincushion Plant. Flower stems are long and keep well in water. Fine mixed. Pkt., 5c; $\frac{1}{2}$ oz., 25c.

LONG'S Nicotiana

(Flowering Tobacco Plant)

F75. Blossoms something like petunia but with longer tubes. Flowers very fragrant and showy. Pkt., 5c; $\frac{1}{2}$ oz., 25c.

LONG'S Delightful Petunias

Great bloomer. Very showy and fragrant. My Giants of California are simply marvelous in size, forms and colors.

F88. CHOICE MIXED. Splendid mixture of single varieties. Pkt., 10c; $\frac{1}{2}$ oz., 25c.

F89. GIANTS OF CALIFORNIA. Extra large flowers of every conceivable shade. Many blossoms ruffled. Truly wonderful.

Giant Petunias have one fault—they produce very little seed, almost none. Seed is therefore very expensive. Pkt., 25c.

LONG'S Nasturtiums (Dwarf)

About one foot high and very effective. They bloom and bloom and bloom. The more you pick them the more they bloom. Fine for beds and borders, also for planting in rings around trees. Stand hot location better than many other flowers. Easy to raise. Tramp soil after planting so it will come in contact with all portions of the ribbed seed. Soaking seed 24 hours will also hasten germination. Sow any time from first of April to July.

F76. LONG'S SPECIAL MIXTURE. Extra fine mixture of Dwarf sorts, always giving pleasing results. Small Pkt., 5c; Special Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 50c.

Separate Colors Dwarf Nasturtiums

F77. EMPRESS OF INDIA. Crimson. Foliage lark.

F78. GOLDEN KING. Rich orange-yellow.

F79. KING THEODORE. Velvety crimson.

F80. PEARL. Light lemon-yellow or primrose.

F81. VESUVIUS. Rich deep apricot.

Any separate color: Pkt., 10c; oz., 20c.

LONG'S Nasturtiums (Tall)

Fine for covering trellises, stumps, fences, etc. Very showy when planted at top of steep bank and allowed to run down the bank. Or may be allowed to ramble in any location. Flowers larger and stems longer than the dwarf kinds.

F82. LONG'S SPECIAL MIXTURE. Fine assortment of large flowering tall or climbing nasturtiums. Small Pkt., 5c; Special Pkt., 10c; oz., 15c; $\frac{1}{4}$ lb., 45c.

Separate Colors Tall Nasturtiums

F83. KING THEODORE. Crimson-maroon.

F84. ROSE. Bright soft rose.

F85. SCARLET. Bright scarlet.

F86. SUNLIGHT. Clear rich yellow.

F87. VESUVIUS. Salmon-rose.

Any separate color: Pkt., 10c; oz., 20c.

LONG'S Phlox Drummondii

For beds and massing nothing surpasses these beautiful annuals.

F91. GRANDIFLORA MIXED. Pkt., 10c; $\frac{1}{4}$ oz., 45c.

LONG'S Pinks (Dianthus)

Hardy sweet scented annuals blooming all summer in variety of brilliant colors.

F94. HEDDEWIGGII. Finest of all pinks. Great variety of colors. Pkt., 10c; $\frac{1}{4}$ oz., 40c.



Morning Glory



Pink



Salpiglossis



Verbena

LONG'S Gorgeous Poppies

Wonderfully brilliant and always popular flowers. Sow where wanted, as difficult to transplant.

F94½. BRILLIANT BEAUTIES. My special mixture of finest double and other charming sorts in wide range of colors. Pkt., 5c; ½ oz., 25c.

F95. "TULIP POPPY." Vivid scarlet. Pkt., 16c; ½ oz., 35c.

F96. SHIRLEY. A beautiful single poppy, white, pink, lavender, purple, crimson, all mixed. Pkt., 5c; ½ oz., 25c.

F96½. ICELAND. (Perennial.) Very hardy, fragrant, blooms first year from seed, good for cutting. Fine mixed. Pkt., 10c; ½ oz., 25c.

F97. ORIENTAL. (Perennial.) Tall and showy. Scarlet flowers. Looks well among shrubs. Pkt., 10c; ½ oz., 25c.

LONG'S Castor Beans

F98. Tropical looking plants growing to immense size from seed sown after danger from frost. Richer the ground the bigger they grow. Good for backgrounds and centerpieces. Children enjoy seeing them grow so quickly to size of trees 6, 8 or 10 feet tall. Pkt., 5c; oz., 20c.

LONG'S Portulaca

(Moss Rose)

F99. SINGLE MIXED. Pkt., 5c; ½ oz., 25c.

F100. FINE DOUBLE MIXED. Pkt., 10c.

LONG'S Velvet Trumpet

Salpiglossis

F101. Very showy plant with trumpet-shaped blossoms in rare combinations of color, beautifully marbled and penciled. Pkt., 10c.

LONG'S Salvia (Scarlet Sage)

F102. Standard bedding plant where brightness of color is wanted. Flowers borne in spikes of fiery red, lasting long time. Pkt., 10c.

LONG'S "Hit or Miss"

F125. Great mixture of many kinds flower seeds—as one customer said, "It's all hit and no miss." Something new nearly every day after begins to bloom. Makes a good hit with all who try it. Pkt., 5c.

SNAPDRAGON—See Page 27.

"I want to thank you for your way of doing business."—Will B. Mate, Briggsdale, Colo.

LONG'S Double Sunflower

F105. The grandest of all sunflowers, 7 feet high, with a dozen or more blossoms on each stalk. Flowers perfectly double, resembling chrysanthemums, and of a rich golden yellow color. Perfectly gorgeous for centerpiece or background, very hardy, easily grown from seed. Pkt., 5c; oz., 25c.

LONG'S New Red Sunflower

F106. Originated here in Boulder. Is not valuable on account of seed being better for feed than any other, but popular as a novelty, because never before was a red sunflower known. Does not come all red, some flowers other colors, as color not yet fixed. Many of the combinations of colors are as interesting as the real red. Pkt., 10c; ½ oz., 25c.

LONG'S Stocks—Ten Weeks

103½. "Cut and come again" fragrant annual. Profuse bloomer. Colors range through all the soft and distinct shades. Pkt., 10c.

LONG'S Sweet Sultan

F107. Delightfully fragrant flowers with small fringed petals. Easily grown. Something like Bachelor's Button. Choice mixed. Pkt., 5c; ½ oz., 15c.

LONG'S Sweet William

Well known hardy perennial producing gorgeously colored fragrant flowers.

F108. SINGLE MIXED. Pkt., 5c; ½ oz., 15c.

F109. DOUBLE MIXED. Pkt., 10c; ½ oz., 35c.

LONG'S Verbenas

F110. MAMMOTH MIXED. Also, Red, White, Purple, or Pink. Your choice, Pkt., 10c.

LONG'S Wild Cucumber

F115. One of the quickest growing annuals, 30 feet in a season sometimes. Foliage dense, great for shade. Produces many white blossoms, followed by ornamental prickly seed pods. Will self sow after first season. Soak seed in warm water 24 hours, or cut small portion of shell away from germ end (the pointed end). Pkt., 5c; oz., 25c.

LONG'S Dazzling Zinnias

See page 4 for large picture and description of this good old-fashioned garden favorite.

F116. CHOICE MIXED. Pkt., 5c; ½ oz., 20c.

F117. LONG'S COLOSSAL MIXED. This is the marvelous giant flowering zinnia that makes 'em all sit up and take notice. See back page of catalogue.

LONG'S SUPERB GIANT ASTERS



Aster, showing type of the Royals, American Beauty, Enchantress and Pink Beauty.

All these, and others, are included in *LONG'S* Special Mixture for 1921.

American Beauty Aster

A18. Immense flowers almost identical in color to the famous American Beauty rose. The branches are exceedingly long and stiff, free from side shoots. As a cut flower it is simply wonderful. Pkt., 10c.

"Boulderado Beauties"

Latest and largest of all. Bloom after others are gone, and prolong the aster season several weeks. Or, they may be started inside and made to bloom earlier. Should be sown early in most localities. The white is a little earlier than the others.

Plants very vigorous, 30 to 36 inches tall; flowers, immense and fully double, are borne on long, strong stems, and last two to three weeks after cutting. **A20** Shell Pink; **A21** Rose Pink; **A22** Lavender; **A23** Purple; **A24** White; **A25** Mixed. Price for any color or mixed: Pkt., 15c; 2 for 25c.

New Royal Asters

A new strain of Giant Asters, especially valuable for cut flowers on account of their long, strong stems that are free from side shoots. **A12** White; **A13** Purple; **A14** Shell Pink; **A15** Rose Pink; **A16** Lavender; **A17** Mixed. Pkt., 10c.

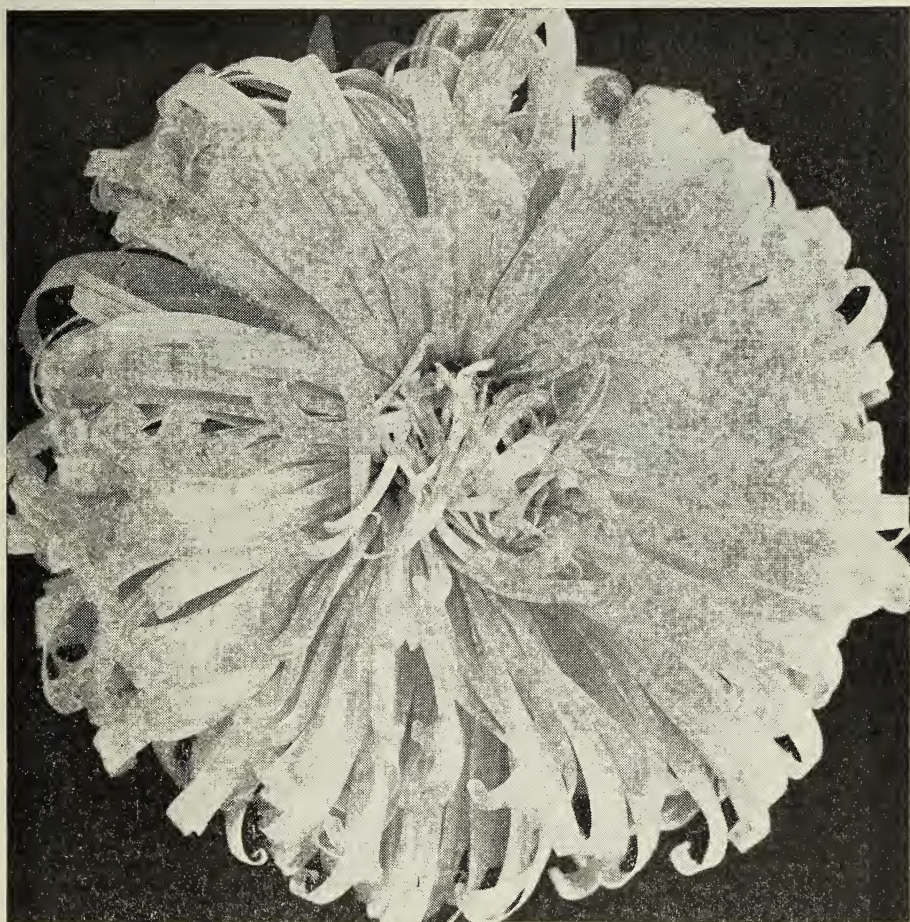
Asters (In Separate Colors)

My best Giant Asters, selected from the different types, Semples, Crego, Royal, Asterum, etc. Several types in each color. **A2** Snow White; **A3** Crimson; **A4** Shell Pink; **A5** Rose Pink; **A6** Purple; **A7** Lavender. Pkt., 10c.

This Catalogue Deserves Hanging

As a reference book on gardening it sure helps some. Better give it a hook or nail. Keep it one year. Hanging is none too good for it.

LONG'S SUPERB GIANT ASTERS



Aster, showing shaggy, ragged, type of both the Crego Giant and Astermum, much admired by many, because they resemble the choice Japanese Chrysanthemums. These Chrysanthemum-like asters are included in **LONG'S** Special Mixture for 1921.

LONG'S Giant Crego and Astermum

These two varieties are somewhat different, yet so much alike that I am going to mix the two, giving you both in one packet of white, rose-pink and lavender. Have never been able to get Astermum in shell-pink, so give you straight Crego in that color of the shaggy type aster.

Crego branches more than the Astermum, and stems are more slender, though hold the flowers well. Both, when well-grown, have immense blossoms and both keep well as cut flowers. The two, Crego and Astermum, mixed in separate colors, as follows: **A8** Pure White; **A9** Rose Pink; **A10** Lavender; **A11** the three colors mixed. All at 10c pkt.

Giant Crego, **A11½**, Shell-Pink, pkt., 10c.

LONG'S Special Mixture

Might well be called my "All-in-One" Mixture. In making this superb 1922 mixture I have used some of all the Asters and Astermums offered in this catalogue, putting in most liberal amounts of the kinds best for cut flowers—plenty of white and pinks as well as the new American Beauty.

Price for **LONG'S** Special Mixture: Pkt., 15c; 2 for 25c. In bulk at: ¼ oz., 50c; oz., \$1.50.

Special Quantity Prices

All Aster packets that are priced at 10c pkt. will be sold at 3 for 25c; 5 for 40c; 10 for 75c.

Giant Aster Plants

Ready about June 1st, when I set out most of mine. See page 35 for prices.

LONG'S Super-Giant Pansies—Seeds and Plants



—“Gigantic Size, Some Light in Color—”

Many customers order five packets, plant several and give the others to friends. Certainly a delightful present. (You may include any of the 25c packets at five for \$1.00.)

LONG'S Super-Giants, Mixed Colors

P1. I grow these wonderful Pansies myself and save my own seed from the finest plants, giving you a marvelous blend of rich and most pleasing colors. Flowers of gigantic size, some light, some medium in color, and some deep velvety colors that you may never have believed could be had in pansies. **Many blossoms are frilled and ruffled like a Spencer sweet pea.**

In **LONG'S** Super-Giants are found the solid colors; others veined, margined, blotched, shaded, blended. Havana brown, mahogany, bronze and copper shades of the Masterpieces and Bugnot; the Giant Carnot and Giant McKinley—these favorites and many others are included in this, my finest mixture. Packet (200 seeds), 25c; 5 pkts., \$1.00; ¼ oz., \$2.50.

LONG'S Other Fine Pansies

(Seeds only, no plants.)

P2. LARGE FLOWERING. Mixed. Pkt., 10c; ¼ oz., \$1.00.

P3. DARK NAVY BLUE. Pkt., 10c.

P4. JET BLACK. Of large size. Pkt., 10c.

P5. WHITE. Large. Pkt., 10c.

P6. GOLDEN YELLOW. Large. Pkt., 10c.

P7. MAD. PERRET. Lovely shades of pink and rose. Pkt., 15c.

P8. GIANT MASTERPIECE. (Spencer Pansies.) Many petals curled; flowers appear double; mostly dark, velvety shades. Mixed. Pkt., 25c.

P9. GIANT BUGNOT. Shades of red, bronze, and reddish cardinal. Mixed. Pkt., 25c.

P10. GIANT PRESIDENT CARNOT. White ground with five rich violet blotches. Pkt., 25c.

P11. GIANT PRESIDENT MCKINLEY. Rich glowing yellow, each petal blotched with deep reddish brown. Pkt., 25c.

P12. GIANT BRONZE. Bronze and brown shades predominate, but many do not come bronze. Pkt., 25c.

100 LONG'S Pansy Plants for \$2.00, Prepaid

Hardy, outdoor plants from Super-Giant seed, sown last fall. The plants are wintered right out in the open, some slightly covered, some not covered at all.

Unlike most florists, I study to hold the tops back and develop a lot of strong fibrous roots for each plant. This is just the reverse from usual practice of forcing the tops by growing the plants in heavily manured ground and forcing them into bloom under glass.

My ideal plant for setting out is one with strong roots and small tops. If tops are too large I may prune them back. This kind of plant stands shipping fine, and will “take right a hold” and make good in your garden. I seldom transplant the large plants, but use the smaller ones described above.

I can ship these pansy plants almost any time after ground is thawed out in the spring. Early in April is a good time. Have made several sowings so as to have them coming on all spring until June. The latest plants went into winter quarters with only several tiny leaves, while the earlier ones were good husky plants, some in bud, others in bloom. Please understand that I do not promise any of these to be in bud or in bloom, though some in each order usually are. It just depends on the season and how fast the orders come in. It is better to set out a small plant early than a large one late. The small early set plants bloom very soon.

Don't be afraid to set these plants out early. They are used to snow and ice. Get the full season's joy from your pansy bed. Sold in mixed colors only. 16 (smallest order packed), 50c; 40 for \$1.00; 100 for \$2.00; 300 for \$5.00; prepaid.



"Many Blossoms are Frilled and Ruffled"

Pansy Plants in Bloom

Note that plants on opposite page are my favorite transplanting size. They may be quite small, not in bud, though often are in bud and sometimes in bloom, all depending on how the orders come in as the plants keep growing. With them the roots are the main consideration. Tops soon develop in your garden.

But for those who want immediate effect, I shall have, this year, some "wintered outdoors" Pansy Plants in full bloom, though not forced plants. Roots are the thing, and roots my plants shall have.

These "ready-to-wear" plants take more room—cost more to grow, handle, pack and mail. Price just double that of the transplanting size: 16 (smallest order packed), \$1; 40 for \$2; 100 for \$4; 300 for \$10; prepaid. Mixed colors only, though if you request part of them a certain color we will try to comply, but we cannot promise to send any certain colors, or a certain amount of a color. Our plan is to grow them in mixture and sell them the same way.

PLANTS FOR MEMORIAL DAY. Better place your order ten days ahead, as I anticipate greater demand than I can supply. Still better, order the small size a few weeks or month ahead, and they will be in bloom May 30th.

Pansy Plants Good Travelers

My outdoor pansy plants stand long distance shipping exceptionally well, for two reasons: They are not forced, but grown slowly to develop roots rather than tops. Our dry Colorado climate has a tendency to toughen the plants. They are not so soft as would be if grown in moist climate. I get fine reports on plants mailed to California, Pennsylvania, Alabama, Massachusetts, and, in fact, all over the country. For this reason I guarantee safe delivery of pansy plants anywhere in the United States.



LONG'S Aster Plants

Orders for plants are taken with the understanding that the plants will be sent when ready for setting out, the time depending on the season. We accept orders up to about July 4th. If I have good "luck" with my plants we will be liberal in our count. Ready about June 1st. Now when I say "about June 1st," I'm something like the old maid who told the census taker she was "about 30 years old." Some seasons the plants are not ready until the 10th to 15th of June. If you wish them earlier you can buy the seed and start them indoors. Bear in mind asters do well sown right outdoors any time from middle of April to last of May.

I have good success with my outdoor grown hardy Aster Plants, setting them out along about the first of June—from that on to the 25th. The aster is essentially a fall flower and should be brought into bloom after hot weather.

MIXED ASTER PLANTS. Popular cut flower mixture. 16 plants (smallest quantity sold), 50c; 40 for \$1.00; 100 for \$2.00; prepaid.

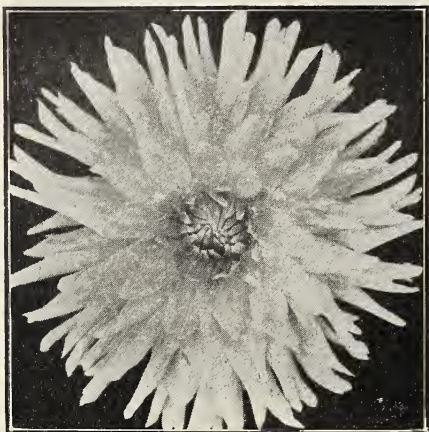
PLANTS IN SEPARATE COLORS. White, Pink, Lavender, Purple and American Beauty. Your choice, 12 (smallest quantity sold), for 50c; 33 for \$1.00; 75 for \$2.00; prepaid.

LONG'S Shasta Daisy Roots

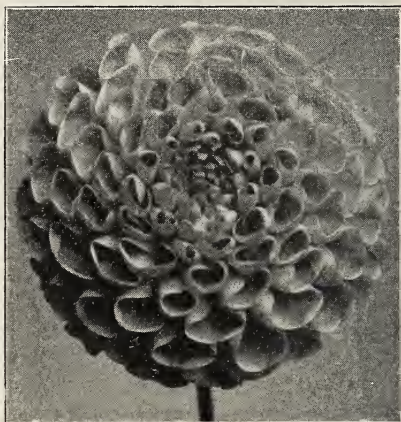
Hardy perennial, blooming nearly all summer, the plant increasing in size and strength for several years, when the large clump then formed may be divided and re-set. Burbank's Alaska strain, propagated from divisions instead of from seed and therefore all true and all alike. 2 for 50c; 5 for \$1.00; prepaid.

"I took first premium at the Adams County Fair on asters, grown from Long's special mixed seed, also on your marigolds. Had marigolds measuring 4 inches across."—Mrs. N. S. Throckmorton, Brighton, Colo.

LONG'S DELIGHTFUL DAHLIAS



Golden West (Cactus Type)



Show Type

Price following each variety is for one tuber with good eye. Each tuber makes a big plant.

D1. PINK PEARL. (Cactus.) Soft pink. 25c.

D2. MOONBEAM. (Decorative.) Canary yellow. 25c.

D3. CHARLES CLAYTON. (Cactus.) Vivid red. 25c.

D5. DELICE. (Dec.) Rose pink; one of best for cutting. 30c.

D6. LA GRAND MANITOU. (Dec.) Gigantic flower, white, striped and splashed reddish-violet. Sometimes solid purple. 25c.

D7. D. M. MOORE. (Show.) Deep velvety maroon; monster flower. 35c.

D12. MRS. BAGGE. (Decorative.) Old rose. 25c.

D13. W. W. RAWSON. (Show.) White, overlaid with delicate lavender. Large. Similar to Grand Duke Alexis but better. 35c.

D14. DR. HENRY SEWALL. (Peony.) Named for former president of Colorado University. Very large, handsome flower; pink-fawn with slight amber shading at base of petals. 35c.

D16. GOLDEN WEST. (Cactus.) Free bloomer; long, stiff stems. Color, golden yellow or burnt orange, shading to clear yellow in center. If I were to plant but one cactus, this would be the one. 50c.

D17. "DEE-LIGHTED." (Show.) Largest show dahlia I ever saw. Pure white. Makes 'em all sit up and take notice. A wonder. 40c.

D19. CHIPETA. (Cactus.) New. Rich amaranth-red flowers, borne on long stout stems which hold flower erect. 50c.

D21. NAIAD. (Dec.) New. Tall, free blooming plant; stems remarkably long. Color a tinted cream pink. Beautiful by day and a dream under artificial light. \$1.00.

D23. MINA BURGLE. (Dec.) New. Said to be finest crimson decorative dahlia known. 40.

D25. SNOWDON. (Cactus.) Exquisite snow-white. Petals sharply pointed. Fine combined with D1, D3, or D16. 35c.

D26. F. W. SCHIEFF. (Dec.) Golden bronze, shaded to red. Immense flower; long stem. 50c.

D27. LAURA BARNES. (Peony.) New. Clear orange-red. Grand indeed. 50c.

D28. SOUTH POLE. (Peony.) Very large, of fluffy form. Pure snowy white. Extra fine. 50c.

D29. MRS. WARNER. (Cactus.) A mammoth hybrid dahlia, often measuring 9 inches in diameter. Color creamy white with just a tinge of pink. One of the finest of the new dahlias. \$1.00.

D30. ATTRACTION. (Cactus.) Large elegant flowers of clear lilac-rose; long strong stems; an exhibition and garden sort of rare merit. \$1.00.

D31. GERO'S PINK. (Show.) New. Rich pink, a shade darker than Lavoni. Flowers much larger and stems longer. Petals beautifully quilled, giving it a unique appearance. 50c.

D32. QUEEN ELIZABETH. (Peony.) New. Soft shade of pink, with silvery suffusion. Flowers large and held well above the foliage by long, strong stems. Blooms so freely that the plants are almost covered with blossoms the entire blooming season. Makes small tubers, but each tuber produces a large plant. Was \$1.00 last year. Now 75c.

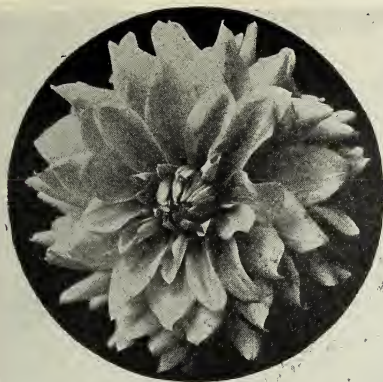
D33. MAUDE ADAMS. (Show.) New. White, overlaid with delicate pink. Very free bloomer and good cutting variety. 50c.

D34. HELEN HOLLIS. (Show.) New. Probably the largest of all red show dahlias. 50c.

D35. COPPERSMITH. (Peony.) New. Flowers only medium size, but its decidedly autumn color is unusual, being a shade of light copper, suffused salmon-yellow. Produces unusual quantity of flowers. 75c.

D36. SWEETHEART'S BOUQUET. (Peony.) New. A unique shade of salmon-rose, shaded fawn. Flowers very large and stems extra long and wiry. \$2.00.

D37. GOLDEN SPRAY. (Show.) Bright golden yellow. Superb for cutting. 25c.

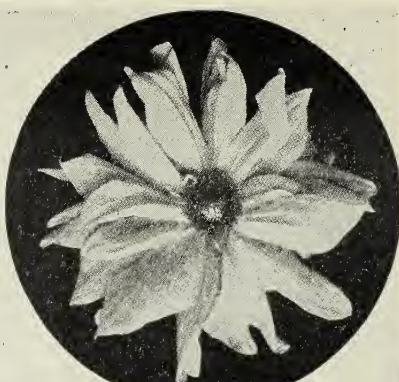


Decorative Type

TYPES OF DAHLIAS

Under each of these four small illustrations is the name of the form or type.

After each variety listed is the type, in parenthesis.



Peony Flowered



LONG'S Delightful Dahlias and Brilliant, Colossal Zinnias

Dahlias to the left; zinnias to the right. Colossal zinnias are so tall and large flowered that it is hard to tell in this picture where one leaves off and the other begins. Our residence in background.

New Dahlias from Seed

Do you know how new Dahlias are originated? Do you know that you can originate new Dahlias yourself?

New Dahlias all come from seed. Dahlia tubers come true and do not mix, but seed will produce various types and colors, probably all different from the kind that supplied the seed. There seems to be no law or rule governing this. They seem to come just as they please. That's what makes it interesting and also gives the amateur a chance to originate new Dahlias of merit.

Where space is limited, it is desirable to plant tubers of a few real good kinds. But if one has more room, then it is indeed worth while to grow some from seed also. Not all from seed will be prize winners, so the usual method is to grow quite a number, then in the fall select your favorites, saving the tubers for next year.

This is the method followed by dahlia specialists. They grow hundreds and thousands from seed, then select only a few that show unusual merit. These are saved, named, and stock increased until enough on hand to offer at fancy prices. You, too, can name your own new dahlias. Some name

them for members of their families, or friends. Splendid idea.

As there are no two people just alike, so there are peculiarities and individualities that make these dahlias of yours, grown from seed, different from others. This adds much interest to growing dahlias from seed.

Sow the seed out in the garden after ground warms up or start indoors and transplant. Protect plants from frosts. Dahlias from seed will nearly all blossom even from outdoor planting, and almost as soon as those from tubers.

LONG'S Special Mixture. A good mixture, same as I've offered for several years. Will produce many fine flowers, and some grand new ones well worth saving and naming. Pkt., 25c; 5 pkts., \$1.00.

LONG'S Professional Mixture. Seed saved from only the newer and finer, expensive varieties. Should produce a larger percent of extra fine kinds, though we never can tell. Same as I myself shall use, hoping to get a few rare beauties. Pkt., \$1.00.

Note. Dahlias from seed come mostly semi-double or peony flowered, the most popular type.



Mammoth White Show Dahlia, "Dee-Lighted"

Known also as the "Roosevelt" dahlia, because some of the blossoms have elongated centers, around which the petals are so placed as to suggest the Rooseveltian smile and teeth. Largest white show dahlia to date. Is massive in every way. Plant very robust and bushy, blossoms gigantic, snow white. Early bloomer. The sensation of any collection. Each, 40c.

Mina Burgle—The Favorite Red

Decorative type. Rich, luminous, dark scarlet flowers on long, stout stems. No other red dahlia that I have seen is so all around satisfactory for garden display and for cutting. Mina Burgle plants bloom so profusely that the effect is most striking. It stands up as a cut flower better than almost any other decorative dahlia. Stands drought and hot sun better than many others. Was 50c; now 40c.

Note. In ordering dahlias, name second choice, or say whether we shall make another selection if sold out of kind ordered. 10% discount on dahlia orders amounting to \$5.00 or more.

"The dahlias that I raised from your special mixed seed were beauties, both this year and last, and I haven't given them much care either."—Mrs. E. C. Moore.

"I had a most beautiful bed of asters from your mixed seed. People came from all around to see them. We supplied one of the stores here over 100 asters for their opening, after giving away dozens of them."—Mrs. Chas. N. Pratt, Aberdeen, Idaho.

"My flowers, grown from your seed, this year, have been wonderful. I have never before had such large flowers and so many of them."—Mrs. Frank Metz, Lyons, Kansas.

LONG'S Orchid-Flowered Cannas



Handsome bedding plants, both foliage and flower of pleasing appearance. **They bloom and bloom and bloom.** The varieties I list are greatly improved kinds that will surprise and delight you.

Many who see my cannas in bloom exclaim: "Why, they look like orchids!"

Class A. King Humbert. Bronze foliage; scarlet flowers of immense size; 4 to 5 ft.

Class B. Yellow King Humbert. Green foliage; very large blossoms of deep, rich yellow, softly spotted with red; 4 to 5 ft.

Class C. Louisiana. Glossy green foliage; flowers vivid red. Very showy. 5 to 6 ft.

Class D. Loveliness. Green foliage; soft pink blossoms. "Loveliness is right." 4 to 5 ft.

Any of the above Giant Orchid-Flowering Cannas, your selection, alike or assorted, each labeled, 3 for 50c, 7 for \$1.00, prepaid.

MIXED GIANT CANNAS. The above kinds or others as good, our selection, none labeled. 4 for 50c, 10 for \$1.00, prepaid.

LONG'S Colorado Peonies

Good divisions, each with several eyes, very fine double flowered kinds, in White, Light Pink, Deep Pink, and Red. Each, 50c; 6 for \$2.90; prepaid.

Note. Peonies should be planted early in spring or in fall. Orders received too late for successful spring planting will be held until fall.

LONG'S Gypsophila Roots

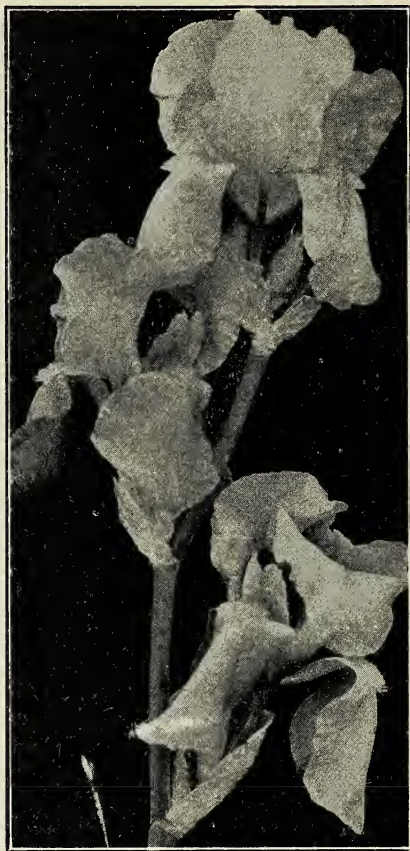
Perennial-Paniculata (Baby's Breath)

See page 29 for description. Good size strong roots, that will bloom nicely this season. 3 for 50c; 7 for \$1.00; prepaid.

"More Like a Friend—"

Had some trouble filling an order for a family out in Idaho one season. Finally fixed it up O. K. and even better than if all had gone well at first. In expressing appreciation of my efforts to do simply as I would be done by, they wrote: "You seem more like a friend than a business man." Why shouldn't any business man seem like a friend, and be a friend to every customer?

LONG'S "Liberty" Iris



The Orchid of the Garden

"The exquisite beauty of the iris, with its soft and iridescent coloring, is rivaled only by the orchid," so the saying goes. But I would add,—and the gladiolus." The iris comes and goes before the gladiolus appears, so there is no rivalry.

Iris prices are for divisions, as usually sold. All prepaid.

30. FLORENTINA. White, faintly tinted lavender; fragrant.

32. RIGOLETTE. Rich maroon, shaded yellow.

34. KOCHII. Rich velvety purple.

36. MADAME CHEREAU. White, frilled with border of light blue.

Price for any the above, assorted or alike, labeled: Each, 15c; doz., \$1.40.

37. MRS. NEUBRONNER. Very deep golden yellow; fine yellow. Each, 25c; 5 for \$1.00.

39. PALLIDA DALMATICA. The giant light blue. Grows to an enormous size. The whole plant—leaves, stalk and blossoms—is gigantic, yet coloring of the flowers is soft and delightful. Each, 25c; 5 for \$1.00.

Mixed Iris, 15 for \$1.00

All good, but labels lost. A bargain, to close out. **One No. 39 in each \$1.00 lot mixed iris.**

LONG'S Glorious Gladioli For 1922

Splendid Named Varieties

Some well-known varieties have been dropped to make room for newer ones of unusual merit. Many deserve half a column space, but have been limited to a few lines.

6 at doz. rate. 50 at 100 rate. For price per 100 multiply the dozen price by 7. All prepaid.

G2. ALICE TIPLADY. New. (Primulinus Hybrid.) Most unusual and charming orange-saffron color. Each, 25c; doz., \$2.50.

G4. AMERICA. Light lavender-pink. A well known variety now giving way to others, such as Rose Bud and Le Marechal Foch. Each, 5c; doz., 50c.

G6. BARON J. HULOT. Dark blue with light markings. Each, 10c; doz., \$1.00.

G10. E. J. SHAYLOR. New. Pure, deep rose-pink, charmingly ruffled. Very tall, strong grower, blooming even from very small bulbs. Each, 50c.

G12. EVELYN KIRTLAND. Rose-pink, fading to shell-pink at center, with brilliant scarlet blotches on lower petals. Very tall. One of the best yet. Each, 15c; doz., \$1.50.

G14. FARIE. Dainty pink, blending into cream throat. Each, 20c; doz., \$2.20.

G16. FLORA. A new yellow from Holland that rivals Golden Measure, though not quite so large, and not so deep yellow. Mighty fine, though, and costs much less. Each, 40c.

G18. GOLDEN MEASURE. Largest, deep yellow. Price coming down slowly. Started at \$25.00 a bulb. Was \$4.00 each last year. Now \$3.00 each.

G20. GRETCHEN ZANG. Soft, melting pink, blending into scarlet on lower petals. Each, 15c; doz., \$1.50.

G22. HERADA. Deep lilac or mauve. Each, 15c; doz., \$1.50.

G24. LE MARECHAL FOCH. New. Another wonderful Holland variety. See description elsewhere, also photo on catalogue cover. Each, 50c.

G26. LILYWHITE. An extra early pure white (sometimes slightly tinged lavender-pink but usually snow white). Each, 18c; doz., \$1.80.

G28. L'IMMACULEE. A new Holland variety of great merit. Pure white without tint or marking. Each, 20c; doz., \$2.00.

G30. LOUISE. Large bright blue-lavender with wine colored blotch. Each, 50c.

G32. LOVELINESS. Well-named; cream, with darker markings; very large. Each, 15c; doz., \$1.50.

G34. MRS. F. KING. Not new, but still makes the new ones go some. Light scarlet; spike tall and straight with many large, wide open blossoms. Each, 5c; doz., 50c.

G36. MRS. GEO. MOULTON. New. American Beauty color. Each, 20c; doz., \$2.00.

G38. MRS. DR. NORTON. Soft pink with yellow throat; large. Each, 50c.

G40. MRS. FRANK PENDLETON. Light pink with dark red blotch in throat; flowers very large and fine; one of the very best, regardless of price. Each, 10c; doz., \$1.00.

G42. MYRTLE. A comparatively new glad that has taken the city flower markets by storm. Delicate rose-pink, shading to lighter in center; early. Each, 15c; doz., \$1.50.

G44. PEACE. White with wine pencilings on lower petals; exceptionally strong and tall grower; not new, but hard to beat. Each, 10c; doz., \$1.00.



G46. PRINCE OF WALES. It's a dream! Similar to the well-known Halley, and as early, but much finer; large salmon-pink, with primrose throat; indeed lovely; fast displacing Halley. Each, 15c; doz., \$1.50.

G48. PURPLE GLORY. New. Deep velvety maroon-red, with almost black blotches; very tall spike; flowers large and ruffled. Each, \$1.50.

G50. QUEEN OF AUTUMN. Pinkish-white, with light scarlet throat. Reminds one of Pendleton, but lighter. Each, 15c; doz., \$1.50.

G52. RED CANNA. Bright red; sturdy grower; large flowers. Each, 10c; doz., \$1.00.

G54. ROANOKE. (Primulinus.) One of the largest of this class; light yellow. Each, 20c; doz., \$2.00.

G56. ROSE BUD. Beautiful light pink; flowers bell shaped and set gracefully on the spike. Before opening, the blossoms remind one of dainty rose buds. Each, 15c; doz., \$1.50.

G58. 1910 ROSE. A new glad that is making a wonderful record. Pure, rich rose, with white central lines on lower petals; large, yet very early; is winning great favor in cut flower markets; rapid multiplier; bulblets numerous and large; bulblets often bloom the first year. Each, 18c; doz., \$1.80.

G60. SCHWABEN. Yellow, with carmine markings on lower petals. Each, 15c; doz., \$1.50.

G62. WAR. Large dark red; spike tall and straight; strong grower; fine. Each, 12c; doz., \$1.20.

Le Marechal Foch

Of the many new glads introduced from year to year, few have ever won such popular favor in so short a time as this new Holland variety, **Le Marechal Foch**. (According to Literary Digest, Foch is correctly pronounced: o as in not; ch as in ship. Or, o as in go; ch as in ship.) Since this name will soon be on the lips of all gladiolus growers, we might as well get it correct to start with.

As you may know, our government does not permit the importation of gladiolus bulbs, except for a few new and worthy varieties, to give our own growers an opportunity to propagate and disseminate them. To import these permitted new varieties, a grower must get a special permit from our Federal Horticultural Board. I was one of the fortunate ones to be granted permits to import from Holland the two most talked about and worthy varieties, **Le Marechal Foch**, and **Flora**. I imported 5,000 bulbs each of these two. After passing the rigid inspection in Washington, D. C., these bulbs arrived just in time for early planting. I had a splendid crop of blossoms and just about the finest bulbs we ever dug, not to mention a dandy lot of bulblets. I sold all my surplus **Flora** bulblets, and some **Foch** bulblets, soon after digging last fall, but retained enough **Foch** bulblets to offer my regular customers this spring, as explained later.

Permits for importation are granted with certain restrictions, one being that the importer shall keep a stock for two seasons, the number of bulbs to equal the number imported. After that he may sell any part or all of his stock. The grower is permitted to sell the bulblets, and any increase of bulbs. Therefore, I can sell bulblets, also a limited amount of bulbs, of my own growing. However, I have arranged with another grower, who imported a year before I did, to supply me with what additional bulbs I shall likely need for my customers this season.

Le Marechal Foch is a light pink, or lavender-pink, similar to the well-known **America**, but a shade brighter in color. It far surpasses **America**, however, in that it is several weeks earlier and a great deal larger. Some advertise it as being twice as large as **America**, but I think this is going too far. It is superior, also, to **America** in the matter of length of flower spike and number of blossoms on a spike. For some reason or other the once popular and valuable **America** has lost its pep, and produces, too often, only short, stubby spikes with few blossoms.

As I said regarding my **Greeley Wonder** musk melon, when we gain in size and quality we usually expect to sacrifice something in earliness. Yet here we have what might be called an improved **America**, though way ahead in earliness. Denver florists are anxiously waiting to get my 1922 crop of cut flowers from **Le Marechal Foch**, as will come in ahead of any other variety that can compete with it. I hated to let as many come into full bloom as shown in the picture on front page, but did so in order to get this picture. You know, we cut them for florists when only the first bud is about open. If I had let them all bloom for the picture it would have been some sight. The three rows directly in front of the camera are **Foch**. **Flora** is to the left, not in bloom, as it is later. **Rose Bud** and some others show a little to the right.

Both **Foch** and **Flora** will be cheaper next year, when I am at liberty to sell all I want to from my own stock. But you will appreciate a few spikes of these, even at the present prices, which are as low as these will be sold generally, this year. **Foch**, 50c each. **Flora**, 40c each.

In the meantime, however, I offer you an opportunity to get a start of **Foch**, for a small investment, and a little time. I'll sell you bulblets of these, with directions for germinating and growing them to flowering bulb size. Bulblets sown this coming spring produce small bulbs by fall. The small bulbs will bloom next year and will also make good big full-sized bulbs next year. You will also get a lot of bulblets both years. Some of the **Foch** bulblets will probably bloom this first season, as this variety is such a strong grower. I have put **Foch** bulblets up in packets of 50 bulblets in a packet. Price per packet, \$1.00.

Your Own Assortments

Heretofore, I have offered several assortments of my own selection, giving a discount from the total amount, figured at the single bulb prices. This year I'm going to let you make up your own assortments, and give you discounts, depending on the quantity ordered, as follows:

On orders for named varieties, amounting to \$1.00 to \$2.50, figured at the single bulb prices, you may deduct 10%. On same kind of order amounting to \$2.50 and up to \$5.00, you may deduct 15%; on same kind of order amounting to \$5.00 or over, deduct 20%. Now, please do not make the mistake of deducting from dozen or 100 rate prices. This applies to bulbs figured at the single or "Each" price. Each bulb will be labeled. If you do not care to figure the discounts, then send full price and ask us to put in plenty of extra bulbs to equal the discount coming to you. Also, state second choice or say whether we shall make another selection, or refund, in case sold out of any on your list. This will avoid needless correspondence, delay and disappointment. **Golden Measure** and **Purple Glory** not included in this offer.

GLADIOLI—Continued

LONG'S Sunshine Mixture

Contains a nice variety of colors, made up from good named sorts, but not labeled. Bulbs all good flowering sizes, but do not average so large as those in the Exhibition Mix. A good honest mixture that will give a lot of pleasure for the price. Doz., 50c; 30 for \$1.00; 100 for \$3.00.

LONG'S Exhibition Mixture

Something fine. Unlabeled bulbs, of our selection, including some of the old favorites, and a number of the newer and high-priced kinds. Many bulbs in the mixture will produce 2 or 3 flower spikes, and as many new bulbs as spikes. This is intended for those who wish something real good, yet do not care to bother picking out certain named varieties and keeping them labeled. Also, the price is less than would be if all were kept separate and sent out labeled. Doz., 80c; 25 for \$1.50; 100 for \$5.00.

Primulinus Hybrids, Mixed

A smaller flowering type, with more slender, but wiry and strong, graceful stems. Prized on account of their unusual colors. Doz., 70c; 25 for \$1.25; 100 for \$4.00.

Exhibition Mixed, Bulblets

With the exception of Foch, I shall not offer bulblets in named varieties, as have included in this Exhibition Mixture what I can spare from my own plantings. But if you wish to get a start in a splendid mixture, including many of the newer and finer varieties, then sow a lot of these mixed bulblets. Some Primulinus Hybrids are included. Put up in packages as follows, liberal count, but sold only in packages at these prices: 100 bulblets for 25c; 500 bulblets for \$1.00; 1,000 bulblets for \$1.90. Bear in mind this is not the ordinary cheap mixture.

LONG'S Rose-Flowered Double Hollyhocks



Their double blossoms rival the rose in exquisite color and form. All are fine, but the pink and yellow are especially so. The pink is the famous Newport Pink, the finest pure pink. The yellow is clear and rich, the flowers unusually large. The roots of pink and yellow average larger than the red and white, though all will bloom.

These hollyhocks bloom second year from seed. I offer year-old roots that will bloom this season. Plant early for best results. Colors: Red, White, Yellow and Newport Pink. 4 roots for 50c; 10 for \$1.00; each color labeled. Mixed colors, our selection, not labeled, 14 for \$1.00. All prepaid. Seed, any color or mixed, pkt., 10c.

Cinnamon Vine Roots



Hardy, rapid-growing climber. Just what you may have been looking for to surround your windows, arbors and porches with a mass of vines, covered with beautiful glossy heart-shaped leaves and a profusion of sweet scented flowers, perfuming the air for a long distance.

Once planted will grow a lifetime. Perfectly hardy, thriving on all soils in sun or shade, wet or dry, doing best in sun and rich soil. No insects or blight trouble this vine; freezing does not harm it. Plant early in April to middle of June, 6 to 8 inches apart. Lay roots flat; cover about 2 inches. As the larger roots make the most rapid growth, I offer one size only—specially selected strong 2-year-old roots. These I will guarantee to grow, if planted as directed. 2 for 25c; doz., \$1.25; prepaid.

Some First Aids for Saving Your Garden

MOST IMPORTANT PLACE TO SPRAY



SPRAYING
UNDER
THE
LEAVES
THE
THING
LONG
NEEDED

Sent
complete
for

60¢

POST PAID

Little Lenox Sprayer

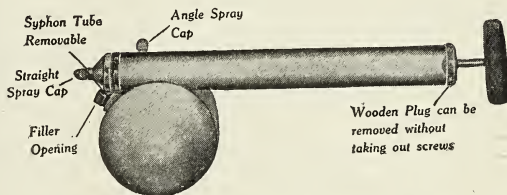
A handy sprayer, always ready, for use on house plants, small shrubs, rose bushes, etc. Throws spray 6 feet or less, according to pressure of hand. A fine spray may be thrown under, over, or upon the foliage removing dust and destroying insects. Fine for newly sown seeds, also for sprinkling clothes. A small cake of tobacco soap comes with the sprayer, but a larger cake should be ordered also, to have on hand when needed.

Two Good Sprayers

Here's a dandy sprayer that will fill the bill for the average home garden, and will do the job right. It is No. 25-C, made with two nozzles or spray caps, as shown, so that will reach under the leaves.

No. 25-C is so constructed that it operates continuously on both the up and down stroke and throws a fine misty spray. Will handle all the usual solutions and is fine for rose bushes, poultry houses, etc., as well as for general garden use.

Galvanized reservoir; spray caps are made of brass, and other parts durable tin, the whole being built for service and durability. Capacity of reservoir, one quart. Price, \$1.50. Same, but with brass reservoir, \$1.75. As the shipping weight of this Sprayer is very light, I will prepay within first four zones. Ask for price to other zones.



Sprayer No. 25-C. Price \$1.50, Prepaid.

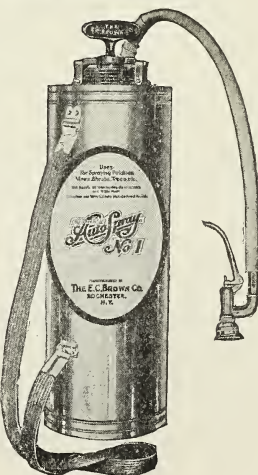
COMPRESSED AIR SPRAYER, No. 1-D

Price \$8.00, Not Prepaid.

This is the larger sprayer, with a solution tank holding 3½ gallons. It is the strongest and most simple in its working parts of any compressed air sprayer. Two pumpings of about 15 strokes will discharge the contents under high and constant pressure. After pumping, the operator has nothing to do but direct the spray. It is equipped with non-clogging nozzle. Tank is made of heavy galvanized steel. The air pump is brass. Entire machine is made without screws or bolts, and no tools are required to take it apart.

Sprayer is fitted with special Auto-Pop automatic shut-off, in connection with nozzle, as shown. Price \$8.00. Shipping weight, 11 lbs. If wanted by mail, add parcel post at zone rate.

I plan to keep both No. 25-C and No. 1-D in stock here at Boulder so as to make prompt shipment, but in ordering it is well to order some weeks in advance of time needed, for it is hard for me to forecast the demand, and I may have to order from the factory.



Sulpho Tobacco Soap

Much used for spraying roses, sweet peas and many other plants. Is a contact spray for lice. 3-oz. cake, 10c; 8-oz. cake, 25c; with directions. Add 5 cents to either size for mailing. Better get the 8-oz. size.

"Black Leaf 40"

Get this through your local druggist if you can, as it is not mailable and express is so excessive on so small a package. I can supply, however, at: Oz., 25c; ½ lb., \$1.00; not prepaid.

Arsenate of Lead

This, also Paris green, can most likely be bought from your local dealer to best advantage, as both not mailable.

Tobacco Dust

Scatters and drives away bugs on melons, cucumber, etc. Good idea to have this on hand. 2 lbs., 35c; 8 lbs., \$1.00; prepaid within 4th zone.

Flower City Plant Food

Concentrated fertilizer or plant food especially recommended for house plants. Package, 25c. Add 5 cents if sent by mail.



NOTE:—The following head to head talk was used in my last season's catalogue. It covers the ground so well that I repeat it this year.

Sure, it's hard luck when seeds don't grow—after you've prepared and planted your garden with great care and fond anticipations. I know all about it. Have inside information, as have been there myself.

Sometimes, if the gardener looks around he can determine the cause of failure, but more often the cause is difficult to locate and then it is that the seedsman gets his. Now as a matter of fact, failure to germinate is seldom due to the seed. With the constant testing and checking up of my stocks there is scarcely one chance in a thousand that Long's Tried and True seeds will not grow if conditions are right.

As I say, the cause puzzles us at times and all indications would lay the blame at the seedsman's door.

A Boulder gardener of long experience planted some of my lettuce seed in his hot-bed. Not a plant came up. Now some would have come right into my store and bawled me out before a bunch of customers. Not so with this man. He had a hunch. He knew that lettuce germinates best in rather cool soil. So a little later he planted from the same package out in the open garden, getting a fine stand. Told me the hot-bed must have been too warm—heat had not subsided enough for lettuce though fine for peppers and tomatoes. Later it would have been O. K. for lettuce.

Mr. Peter Moss of Loveland, Colo., and his neighbor ordered their carrot seed of me together, all in one bag. Peter put all the seed in the drill box and ran his rows. Neighbor took the drill and planted the rest in his garden. Mr. Moss got fine stand and good crop. Neighbor got only a few scattering plants, plowed up the patch and planted to something else. You bet I was glad Peter had a hand in this, otherwise it would have looked bad for me. My guess is that Mr. Moss's patch was worked up real fine, held more moisture and held it longer, and the drill was run at the right depth, about $\frac{3}{4}$ inch.

A sister over at Steamboat Springs wrote me last summer that my alyssum seed did not grow. Did not say was "no good," but I gathered from the way she stated the case that she thought so. How many of you had good "luck" with my alyssum seed last season—Hands up, please—Thank you. I knew that seed was O. K.

Mr. Wm. Joss, 1740 Ninth street, here in Boulder is some gardener; few, if any, better in Boulder county. Of course he plants Tried and True seeds. In the summer of 1918 Mr. Joss called me in to see his freak onion patch. Mr. Walt Pitzer of the Henry Field Seed Co., was visiting me that day, so we drove over together.

There we found the finest peas, lettuce, carrots, beets, in long straight rows across the garden, with a section about two rods wide given to onions from seed. All across each end of the onion rows was a strip some 20 to 30 feet wide in which there was a good stand of onions, growing nicely. Between these two ends a large section of the patch had no onions and never had any, at least none visible to the naked eye. All rows had been drilled the full length of the patch. Why did they not grow all the way through the patch? Search me. Search Mr. Joss. Search Walt. Believe me, I was glad to see the onions growing at the ends of the rows anyhow. Once more my life was saved, though in this case I was safe. Mr. Joss appreciates the fact that seeds may be good and still not grow even when conditions seem all to the good. I seldom have complaints from real gardeners, but could you have blamed anyone for kicking, if conditions had been same all over the patch as in middle of this one, and not an onion showing up, while on both sides were carrots, beets, etc., planted the same day, all growing full length of the rows?

Over at Lodgepole, Neb.—but my page is about full and I must stop, though could go on and on citing such cases. In conclusion, let me ask you to "have a heart" if seeds don't grow. Tell me your troubles, but break the news gently, please. I'm liberal about helping you out, if you have real hard "luck"; though, for reasons stated, I cannot guarantee seeds to grow or be responsible for the crop.



"Yours truly"

LONG'S SHORT TALKS

How you did scare me! It turned out to be a joke, but was mighty serious for a while. Last season our mail order sales for January and February fell 40% short of the year before. I had counted on an increase instead. Maybe you think I wasn't scared. Thought I must have done something terrible in the handling of your orders the year before, or perchance offended you with some of these Short Talks. Just seemed that a lot of my good customers had eloped with a better looking seedsman.

Was I cast down? I sure was. But land sakes! How the orders did rain down in March. The first two weeks in March we received double the number of orders we had the same period the year before, and the whole month ran 80% ahead of 1920 March. It saved my credit at the bank, but nearly wrecked my health and that of several my best assistants. But we lived through it, and can repeat the performance, if necessary.

But it isn't necessary. And this leads me to a heart to heart, head to head, pocketbook to pocketbook, talk about early ordering. Now don't rush off. I know this is an old story and one that never sinks in very deep with most folks, but I'll pay you for a few minutes of your time, if you will kindly just sit there and listen until I've had my say!

A Peep Behind the Scenes

It recently occurred to me that I may be to blame for your not ordering earlier. Not that I mean all should order before March, or that you need order everything early. But if only half of you would order half your requirements in January and February, and the rest later, it would make a world of difference not only to us, but to you, for we could then give you so much better and more careful service.

But who are going to be that half? Ah, there's the rub. Heretofore, most of you have taken it for granted that the other fellow would do his ordering early and that would clear the track for you when you came a-rushing all out of breath the first nice warm spring day for your own seed, to be sent "by return mail—rush!" Only sure way I know is for you yourself to order early, if possible.

I started to tell you why I may be to blame for this lack of appreciation on your part of what more early orders mean to both you and us. Perhaps you don't understand the situation at our end of the line. So I'll try to give you a peep behind the scenes. The first two weeks in January we are busy mailing out the catalogues and getting seeds into shape for filling orders, though a lot of this seed preparation has been going on for weeks before. Along about the middle of January we are all lined up, ready to fill the seed orders and book orders for bulbs and plants that are to be sent later.

Our problem is to get enough orders from this time to March to keep our force busy. The secret of giving good, efficient and accurate service is to use only such help as we have trained for the work. It is far better for you to have your orders filled

by these trained order clerks than for us to try to put on inexperienced help for a short spurt in the spring. In fact, we don't put on much extra help during the rush, for they can't get on to the ropes so as to do us or you much good, but may do a lot of harm. There are certain things they can do, but these services are limited. So we just wiggle along in the rush the best we can, getting behind at times, and catching up when a cold wave or a four-foot snow comes along to help us out.

Here's what we have to contend with: The majority of people always have, and always will, wait until the spring gardening fever strikes them before buying their seeds. Just about that time we have to begin filling our back orders for strawberry and pansy plants, bulbs and roots. This adds to the "peak load." On top of this comes our local trade. Boulder folks have always traded with us liberally and deserve our careful services. So all in all, we are as busy as the proverbial cranberry merchant, and then some.

Now what I've said of our own problem applies to other seed firms as well, so it doesn't matter of whom you order, the "peak of the season" orders will be handled under the same handicap. How much better to give us your order in January or early February, when our trained clerks can give it ample time for careful filling.

My ambition is to give 24-hour service. By that I mean your seeds will be in the mails within 24 hours from the time your order reaches my desk. We've made this record for weeks at a time, but fell down woefully last March. For a while we ran a week behind this 24-hour schedule.

Why Not Order Twice?

Here's a possible solution of your problem, for I know it is a problem with many of you—a problem of finances and time, to select just everything you may finally need.

Why not do this: Right soon after you get the catalogue, run through it and make out an order for the most important items, especially those that you should have on hand for early planting. Then at your leisure, later on, order what more you need, including such items as corn, beans, melons, squash, cucumber, aster plants, etc., that you will not need all in a rush.

Sure, if you can order all, or nearly all at once, and early, that would be fine and suit us better, for it costs us more to handle two small orders than one large one, but we are perfectly willing, and even anxious, to stand the additional work and expense if it will help relieve the congestion in the rush season, and give you better service.

In your first order you should include such items as tomato, cabbage, cauliflower, spinach, some radish, lettuce, carrots, beets, onion seed, peas—be sure to have onion seed and peas on hand early. In flowers, get your sweet peas early and plant them early. Also get pansy, aster, and other seeds that you may wish to start indoors. And don't forget to order your strawberry and pansy plants early. Plant 'em early, for best results.

Save the Brown Envelopes

Ever notice how tough and strong those brown return envelopes I include with catalogue are? "They carry the load to the end of the road." Coins may be mailed in them with comparative safety. The address is so "loud" and plain that mail clerks tie my envelopes on top of bundles of letters coming to Boulder. Save this special envelope. Use it when you order. It brings home the bacon.

Reward for Early Orders

I said I would pay you for listening to this dry but important explanation. I'll pay you in this way: If you sit up and take notice, and do send me part or all your order early I'll see that you get something extra in your package. Am not saying just what it will be, but will be something worth while.

As you will notice, I'm sending two order sheets. This gives you a spare one for a later order. Also, with your early order we will send still another order sheet and brown addressed envelope, to make it easy for you to send another order later.

"Hey, there!" someone is saying: "Long, you're foolish. You'd better get their whole orders at once for they might send the second installments to some other firm." I'll admit there's something in that. But it's up to us to fill the first order so carefully and liberally that we will merit and get the later ones.

Concerning Later Orders

Some may also say: "Long, you certainly are a fool. You make such a fuss about early orders that you won't get any late orders. You'll scare 'em out. They'll think you don't want late orders and can't take care of them." Why, bless you, it's to take better care of the late comers, as well as the early birds, that I'm using so much good space telling you all about this. You bet, we do want orders, early, medium and late. We need orders every day, lots of 'em. We want to be busy, and expect to be, right up to the middle of June, and all summer long will look for some orders. There's something that can be planted to advantage all summer and fall, you know. We treat late comers liberally also.

Why Not a "Garden Week"?

It's growing—this mobilization of press, pulpit, civic organizations, etc., for a week's educational drive for some worthy cause. Let's see, we've had Father and Son Week. Pay Up Week. Cancer Week. Thift Week. No Accident Week. Better Speech Week. Made in Colorado Week, and some others, perhaps, that I don't recall just now. I fear if this idea keeps growing we will have to change the calendar in order to have weeks enough to go around!

But before all the weeks are spoken for, why not have a Good Garden Week? Wouldn't it be great if for one whole week the Newspapers, Preachers, Lion's Clubs, Rotarians, Commercial Associations, would tell us how to get more pleasure and profit from our gardens? Of course, it wouldn't do for a seedsman to start this. Immediately there would be a howl of "Graft! Graft! He just wants to sell more seeds!"

Meet Mrs. C. W. Fox

Ever since our first catalogue was mailed, Mrs. Fox has had most of the responsibility in delivering the goods. During the busy season we have a bunch of other good people also, but a thousand and one details are turned over to Mrs. Fox. She directs and assists the others in keeping all seeds in place, labeled, and put up as ordered. Of course, I'm here, there and everywhere, helping a little and sassing the bunch once in a while. Mrs. Long comes in and "takes right a holt" in the rush. In fact "everybody works—even father." But if you were pleased with the way your orders were filled and delivered, blame Mrs. Fox and her assistants. I can almost always prove an alibi, but they were right there when it happened.

I Had a Close Shave

For several years I had been receiving liberal orders from a family up in Wyoming, far from wholesale vegetable shipping centers, so that vegetable growing there has been profitable for these people, and—for me.

But last summer I got called down. The lady wrote that they had planted a good-sized field of carrots three times, but could not get the seed to germinate. Said was great disappointment and loss. Struck me strange that our carrot seed should be so particular as to where it would grow and not grow, for was growing right and left for others. So I looked up this lady's order, and, Oh, Joy! There wasn't a carrot seed ordered from us. So I sent her the order and she did a little investigating herself. Came back with a big apology, saying this item and some others had been ordered from another seed firm, for the reason hubby was partial to this firm back home where they used to live. Says from now on Long's get the entire order.

Vegetable Plants Discontinued

I never did want to sell vegetable plants by mail, but to accommodate a few customers have done my best for several years to deliver good plants safely, but with only fair success.

Vegetable plants are soft and difficult to send by mail, to arrive in good condition, especially in times of flood and when they are detoured and held up a week or two. Furthermore, I am not prepared to grow many of these myself, and all sorts of complications arise when I try to act as the go-between for grower and planter. I believe you will do better to grow these plants yourself, so far as possible, and get what you can't grow, from some nearby source, by mail, if necessary, but from a grower.

Cabbage and cauliflower can easily be grown from seed planted in the open garden from early April to middle of May. They stand lots of cold. Make several sowings a few weeks apart to insure plenty good plants. Tomato and pepper require very warm soil, and for early plants should be started indoors or in hotbed. Many gardeners sow tomato seed right out in the garden with good results, after soil is well warmed in May. Ground cherry does very nicely sown in the open also.

Mr. W. B. Foster, R. F. D. No. 2, Box 8, Greeley, Colorado, grows good vegetable plants on a large scale. Drop him a line for list and prices.

Our Field Seeds Limited

Owing to the rapid growth of our garden seed department, I have cut out everything in field seeds but my famous Colorado-grown, honest-to-goodness, certified Minnesota No. 13 seed corn, dry land Sudan grass seed, and the new Hubam annual sweet clover. The room, capital and attention which additional field seeds would require will be devoted to more careful handling of the vegetable seeds, flower seeds, plants and bulbs. This is an age of specialties. We shall concentrate our efforts more.

We Can't Please 'Em All

Had Abe Lincoln been a seedsman he might have remarked: "You can please part of the people all the time, and all the people part of the time; but you can't please all the people all the time."

That Ford Story—Concluded

Chapter Three

It's all over. I traded that notorious, obstreperous, used and misused Ford for a new flivver. Just had to do it. Henry became so afflicted with the rickets, gout, radiator hemorrhages and other ills that he couldn't keep his appointments.

Those sinking spells were more frequent, severe and prolonged. Often I had to dash hot water in Henry's face and work over his apparently lifeless form to bring him out of it. And the ungrateful cuss would reciprocate by trying to kick me. Never got me, for I proved too agile, like the darkey who said: "No sah. Dat ole fool mule nebber zackly kicked me yet, but he often kicks whar I've jest bin."

Now you wonder why I fell for another Ford. Well, there's a reason, and I'll tell you. Some years ago when I "enjoyed poor health," as the saying goes, Doc recommended horseback riding. Said a daily jouncing and shaking up was great medicine. So I had Doc's prescription filled, took my medicine, and became a rough rider. Later I found this treatment could be taken in a Ford—flivver again displaces the horse!

Since "An ounce of prevention is worth a pound of cure," far be it from me to discontinue the treatments. Instead of taking medicine from a bottle one has to "shake well before using" I'll take mine with my daily work, in a Ford that "shakes well while using." So don't waste time on me, you genial automobile salesmen. What I need is a dual purpose car. Therefore, it's a flivver for me. Boy, page Henry Ford!

Why I Can't Do This

One of my hardest jobs is refusing to buy small lots of seeds offered by many of my friends and customers. They don't understand why I should not buy seeds from them, as well as they from me.

So I'll explain this, frankly and fully. Seed raising is a highly specialized business. With few exceptions, my stocks are grown under special contracts, placed a year or several years ahead, with men who have made almost a life study of this business. Certain kinds of seeds are grown in certain sections (nearly all are grown in the west), where they will develop and mature best. They are grown in large lots, in isolated tracts, to keep them as pure and unmixed as possible. Furthermore, all high-bred stocks have a tendency to revert—to run back, or run out. To keep them up to standard, and improve, if possible, the grower must select his stock seed—seed he plants to produce my crop—with special care and judgment.

Another reason why I need to secure my stocks in large lots and only one lot or not more than several lots of a variety, is that after these seeds come in they should be inspected and tested. Now if I were to buy small dabs here and there, not knowing the pedigree or history of the stock, or whether it might have been grown so as to keep it pure, and all that, I would never know just what grade of seed I have. And to test each small lot and check up on it would be practically impossible. I could not send seeds out to you with the assurance that they would prove "Tried and True." Even when experts in the business have done their best, some things are not perfect, and it would be a bad mess if I should buy at random, even if the seller was most sincere and painstaking. For these reasons I am not in a position to buy seeds from those not engaged in the growing of seeds on a large scale.

Gardens to the Rescue

In these times when we need to make a dollar do its full duty, lucky is the family that has a garden spot. Toss the garden a quarter and it will return you dollars. Be more liberal, and it will come back strong with a bounteous contribution of eats and flowers. Sure, you'll have to hob-nob with that garden, giving it some of your time, but if you are built right you get additional compensation in the joy of watching things grow.

"All Dressed Up But—"

Each year I have a few thousand extra catalogues printed. After mailing to our regular list I shall have these surplus copies—"all dressed up and no place to go." I want them to go to those who have never read *How's* Delightfully Different catalogue. How would you like to have one sent to a neighbor or friend who is interested in good seeds and gardening?

Looks to me like you would be doing your friend a favor. I've had some neat cards printed, with space for inserting your name, stating the catalogue is sent at your request. I prefer names of people west of the Mississippi. These names should be sent me early—before your friends order seeds—to do them and me the most good. Thank you.

Said It Would Be a Frost

"There's a man in our town, and he is wondrous wise"—at least he seems to think so, and I share his opinion, in a modified form. This business man and I have frequent chats and spats over business problems. I often lay my plans before him and ask for his candid opinion. The worst of it is, I get it. Many times it makes me mad, too, and I feel like telling him just what I think of him, but on second thought decide to "use discretion," for this man weighs about 40 pounds more than I do.

For some years I have entertained an idea, not as a steady guest, for this idea would come and go, informally, sometimes dropping in for the week-end, at other times would just show up long enough to say, "Howdy," and be off again. I presume the reason the idea did not stay longer at a time was because it was lonesome, and craved company. Anyhow, as I say, I entertained this idea intermittently for several years or more.

The idea was to write a garden book of say about 64 pages, same size as this catalogue, but everything from cover to cover to be just talks about gardening, and related subjects. To do this would require quite an outlay of cold cash, as a good many copies would have to be printed after once in type, to bring the cost of each booklet within reach. I had this problem all solved, to my own satisfaction, by making a nominal charge of say a quarter, for each copy. With much enthusiasm I explained my plan to the aforesaid "business doctor," and asked his opinion. Said he: "No; you would not sell many copies, and would be stuck with the rest. It would be a frost!" Now wouldn't that frost you! It did me.

With this cheerful statement ringing in my ears, I set about to compromise. The result is, 16 pages of "Some Garden Secrets" in this catalogue, free, and a list of still more garden suggestions that can be had at the same time, and still others for a nickel or a dime.

"Who's Who—And Why"

(Let's Get Acquainted.)

My front name is Jesse; my last name is Long; my middle name is still longer (Dillman). No, I was not named for Jesse James, but for a preacher. Many assume my name to be John, but I usually answer to the call of "J. D."

Like all great men, I began life a barefoot boy—at a very early stage of my existence. Took a 21-year course in farmology in Northern Iowa. Liked farming fine. Enjoyed seeing things grow. Father wisely let me help plan the crops, buy and sell the stock, etc. Let me have a field to farm myself, as I grew older, from which I saved money for schooling. Mother also encouraged me and made farm life pleasant.

Not because I had the making of a school teacher, but because other young folks in the neighborhood went to the State Normal school, I, too, got the bee in my bonnet. Spent nearly two years at Normal, but changed my plans after the doctor thumped me, phoned me with his stethoscope, and said: "Young man, you'd better go West and grow up with the country—and the sooner you go the quicker you'll get there."

"West" was a vague term to me. Tried Moscow, Idaho, where I attended the State University and taught in the city schools for two years. Good country; fine people. Never enjoyed life better. But climate not best for me, so after another thumping I was told by a Moscow doctor to try Colorado, as it might prolong my life several years. That was in the spring of '98.

Returned to Iowa for the summer, then set sail for Colorado, with my good friend Ellsworth H. Mottinger, a seasoned mariner who had piloted many a prairie schooner safely over the Western prairies. Our motto, "Pike's Peak or Bust," was not original but was sincere. Well, by gum, we busted—just before reaching the Colorado line, out there near North Platte. Weather was threatening. We sold part of our outfit and junked the rest. Mottinger wended his way eastward, while I robbed the cash register and applied the funds on a ticket to Colorado Springs.

Near there, in the historic Ute Pass, at the foot of Pike's Peak, I roughed it just as the doctor ordered. Worked for my board on a ranch for a year and a half. As a success at broncho busting I was a failure. But I climbed all over those hills, or toes of Pike's Peak. Judging from the size of the toes I'll say it is some foot.

Spring of 1900 I came to Boulder County. Sez I to myself, sez I: "This is the place for me." Considered myself lucky to get a "position" out on the Hoover ranch east of Boulder at \$1 a day. Prosperity had at last dawned for me. Knocked around in that neighborhood all summer and fall making hay, picking berries and husking corn. Little dreamed that some day I would be the leading Minnesota No. 13 seed corn seedsman in Colorado.

Moved into Boulder that fall, with no definite plan. My future was all before me. Had no job. Was not qualified to do much. Waited, in vain, for the office to seek the man, then told a merchant that I'd work for nothing a while just for the experience. Worked six weeks on this basis, then got another "position" at \$25 a month. Again prosperity smiled upon me and life was one glad song.

Went from bad to worse, until became manager of the store. It was a variety store, containing, among other things, a small assortment of seeds. I became mightily interested in that little old seed department and

tried to improve it. Soon junked the ready-to-wear packets that were put up to look "nice and purty," but little regard given to the quality of the stock.

I studied this seed business day and night. It was exceedingly interesting and fascinating. In time I became local authority on seeds and gardens and gave Boulder people real, honest-to-goodness seeds. Boulder folks moving to other sections would send back for "Tried and True" seeds. Almost before I knew it I was in the mail order seed business. This as well as our local seed business kept increasing until I saw a great light! I saw a greater future for Long as a seedsman, dispensing Tried and True Seeds, Best for the West, than the general store line could offer. So I changed the name of our firm to the J. D. Long Seed Company (I had become a large shareholder in the business by this time). I wanted the name, Long, to be closely associated with all the seeds we might sell. I had an ambition to make that name stand for something worth while. Also, I felt that with my name on every package and label I would not only take pride in the goods but would also make an extra effort to see that the seeds I thus vouched for would prove satisfactory.

Many of you know the rest—how the little seed department has grown until now it is our main business, with just several other lines on the side for local trade, to help pay expenses between seasons. My personal time and attention is given to the seed business and my gardens.

I don't know what our possibilities are. Never did want such a whaling big business that I could not keep in close personal touch with its details. On the other hand, we still need a larger volume to really justify me for putting in the thought and effort that I give to this work, though simply making money for the sake of money never did appeal to me. But it's coming—this increase we need—and coming strong. Every year ahead of previous seasons. Satisfied customers stay with us and keep telling others about us and our good seeds and fair treatment.

Best of all, this has been a healthy growth. I never try to work my friends. Everything is open and above board. I tell them, of course, that I do appreciate all they do for us, but never "argufy" with them if they don't feel like giving me part or all of their business. I don't make extravagant promises nor try the catch-penny schemes often employed in the seed business. I prefer good, clean, frank, business methods, even if we fail to round up all the business in sight. If this appeals to you, "Come on in—the water's fine."

Doc Says, "Eat Vegetables"

Eat more vegetables, fresh vegetables, preferred. There's a reason. Ask Doc. He knows. The dear doctor may also tell you to drink more water between meals, and chew your food, as you have no gizzard.

And he'll tell a lot of you folks to take exercise, preferably in the open air. Some of us farmers take too much exercise, but a bunch of you town folks need it. You'll find a dandy lot of healthful exercise lurking around a spading fork or hoe handle. Try spading up exercises in place of settin' up exercises once in a while. Land sakes! If you never got a cent's worth of vegetables from your garden you would still be to the good. But you will get a fine lot of fresh vegetables. And flowers! You'll enjoy your exercise all the more if you are daily watching the growth and blooming of the flowers. Get the habit; cultivate the liking for flowers. It pays.

"Corned Beef and Cabbage"

Have you noticed that no matter how often Jiggs is laid up in the hospital, it's always due to an "accident," rather than any constitutional ailment! You never hear of his having tonsillitis, lumbago, gout, neuritis, hay fever, gastritis, hardening of the arteries, jaundice, appendicitis, croup, rump or dis-temper. Barring accidents, Jiggs seems to lead a charmed life, as to health.

I was wondering about this the other day, and think I have the solution. We hear so much of late about vitamins, so essential to health, and supplied the system in certain foods. Personally, I never met up with a vitamin so as to recognize it, but am taking the word of others who study them at close range. They tell us there are three "varieties" of vitamins, all needed by the system, and that cabbage is one of the few vegetables that contains all three. There you have it! Jiggs gets his full quota of vitamins along with his corned beef and cabbage. He'd get more if the cabbage were not cooked much, and still more if raw.

Read up, ask your doctor, and you'll find the reason you should eat more fruits and vegetables. You may not be able to grow the fruits, but you can produce the nice fresh vegetables, if you have a bit of garden ground. Remember, fresh vegetables are the most healthful—the fresher the better. Remember, too, that if you depend on buying them you will go without many times when you would have them, if in your own garden. Land sake's alive! I could go on and tell you a lot more why you should have a garden, and a good one, just for health's sake, to say nothing of the saving in cost of living, but I have to be careful! I've got a lot of doctors among my good customers all over the country, and far be it from me to deprive them of their practice and emoluments therefrom! To me, there's something significant in this matter of so many doctors ordering vegetable and flower seeds, plants and bulbs every season. Looks to me they know what's what. Some of my most enthusiastic dahlia and gladiolus fans are doctors. If it's good for the dear doctor to have a hobby and fuss around in his garden, it's good for you, I'll say.

Who Said, "Delightfully Different"?

You, our old customers and friends, will note the change of Decidedly Different to Delightfully Different. Now it would take nerve for me, the writer of this little old catalogue, to call it Delightfully Different, though I felt safe enough in saying it has been, from year to year, Decidedly Different.

Kindly don't blame me for the change, for it was suggested by a number of my readers. If that's the way you feel about it, I'm only too glad to call it Delightfully Different, and shall lie awake nights trying to think of how I can make it conform to this description. It would be easier to make it simply Decidedly Different. Here's hoping you won't be disappointed.

Plant Peas. "Lettuce Have Peas"

Uncle Sam says the supply of canned peas in cannery warehouses is only one-fifth as much as a year ago. Looks like pretty good idea to plant a good lot of peas and do like the family who said: "We eat what we can, and what we can't eat, we can."

Plant Fall Bulbs In Fall

Tulips, hyacinths, narcissus, crocus, etc., are for fall planting only. Cannot be supplied in spring. That is their season for blooming, after spending the winter in the ground. Ask for special fall bulb list if you do not receive a copy by Sept. 20th.

Disarmament of Seedsmen

In my opinion, a little disarmament of us seedsmen would be a mighty good thing for both seedsmen and planters. We should scrap a whole lot of varieties and concentrate our efforts on the better ones remaining.

We should be slower to offer new varieties, for many found in some catalogues, pictured in glowing colors and given a page of hot air, are no better than some of the better known, tried and true kinds, though the price is usually much higher. That's the one extreme. The other is, carrying along old varieties after there are plenty of better ones to be had at reasonable prices. Thus the long list keeps growing, making it more and more confusing for the customer.

Handling so many different kinds costs the seedsmen more than if he had fewer kinds. Any seedsmen knows this. The customer shares this extra expense. Both the seedsmen and the customer are to blame for this condition. The seedsmen, because he is afraid that if he does not catalogue a long list of varieties he might leave out a certain kind that Mrs. Jack Dough thinks she must have. He figures that Mrs. Dough will order this item—maybe a nickel's worth—elsewhere, and while so doing will include some other items that the first seedsmen might have gotten if he could have supplied Mrs. Dough's favorite variety.

Personally, I am not scared so badly about this as most others seem to be. I've been told that if I don't handle this and that, my customers will send elsewhere for it and I may lose the whole order. My theory has been that the wise customer will use judgment and discrimination in buying, and will get as many items as can be had from a seedsmen who doesn't scatter his efforts too much but supplies the best of the most things needed by the most gardeners. Up to the hour of going to press, my theory has worked out all right, so far as I am concerned. I am getting more orders, lots more, from year to year.

But I said the customer is also to blame. I mean in this way: Rarely indeed is there any one variety but that another is so similar it could be used instead. If you want to know the whole truth, I'll tell you that some varieties are identical, but sold under different names. You can help the seedsmen to disarm by not being too finicky and insisting always on just such and such a variety. Of course there are some outstanding varieties that have no "just-as-good" competitors, but they are mighty few.

Sometime I may get my courage up to the point where I will eliminate all but two to four kinds of such things as beans, cabbage, sweet corn, cucumber, lettuce, peas—but what's the use enumerating more, for there is hardly a line but what might be cut almost if not quite this close. For some years I've been cutting out here and there, rather than make such sweeping reductions.

Doubtless other seedsmen, also, would like to eliminate many needless varieties, but are in the fix of the restaurant in which a patron ordered a liberal breakfast, including eggs. On second thought, he said to the waiter: "You may eliminate the eggs." Presently the waiter returned much perturbed, saying: "Can't you take your eggs some other way, Boss? Cook says he done busted de 'liminator." That's the trouble in the seed business—too many 'liminators out of commission.

SOME GARDEN SECRETS

"What's In a Name"

These garden talks "by any other name would spell the same" results in your garden. I might have used any one of a dozen other titles, but after considering them all, decided on *Some Garden Secrets*, for two reasons.

First, to arrest your attention. Now isn't it a fact that we all prick up our ears and listen in if we think someone is about to spill a secret? Another title might have served as well, and that is, "Confessions of a Gardener." Next to secrets, confessions grip our attention. Guess it's about fifty-fifty with secrets and confessions.

The second reason for my choosing *Secrets*, is the fact that most folks—you and I expected, of course—but most folks, no sooner learn of a secret than they have a burning desire to tell it to some one else. This is especially true in case they have been told most solemnly not to breath it to a soul!

Now I hope to make these talks—call them garden secrets or talks—so helpful that you will be able to extract much more profit and pleasure from your garden. And because I want every gardener in the land to do the same, whether a customer of mine or not, I am hoping you will pass many of these suggestions on to others. To practically insure the carrying out of this idea, I am not only telling you these things as secrets, but shall ask that you guard the secrets most carefully! Don't let anyone else read these pages. And don't, for the world, tell a living soul how to keep pansy plants over winter, how to grow onion sets, how to transplant weeds, how to pester the garden pests, how to grow head lettuce, how to put the garden to sleep, how to get a lot of additional information that I have not had space to impart herein. Now, if you will promise not to tell, I'll proceed!

"Confession Good for Soul"

So the saying goes. Therefore, I'll make some confessions right now. I'll confess that you may be disappointed. I'll confess that many things I shall say will not be new to you at all, and no secrets so far as you are concerned. I'll confess that it would take a much smarter man than I to use so much space and not repeat many things that many of you have already heard about and practised. I'll confess that many secrets you might wish to hear will be left unsaid. This for the reason it would take a truck load of garden books to cover all the ins and outs of gardening details. Then, too, there's a whole lot I don't know.

A doctor out in Idaho once came right out in the open and said to me: "There's a lot we doctors don't know." I always had suspected this, but was a bit startled to hear such a frank confession. Yet I think no less of this doctor and his profession. I always admired the dear doctor the more, for his frankness. Then again, there may be some things I do know, but have overlooked. Give me credit, please, for knowing a little more than I am telling! However, and finally, if you will read every word of what I am about to tell you, in my weak and wobbly way, also the books and leaflets I refer you to, and do not get one contribution to your supply of garden knowledge, kindly call, phone or write me, for I am very eager to get acquainted with every gardener who has a strangle hold on so much garden lore.

Get a Liberal Education

As suggested above, the field is so large that you might read a ton of books on gardening, and still some worth-while facts would evade you. In these few pages I can only scratch the surface or touch the high spots in this vast field of knowledge. Instead of holding myself to cut and dried, condensed, cultural directions, told in the usual cut and dried way, I shall try to give you rather detailed suggestions about a few things, and refer you to leaflets, booklets, and books that cover more subjects. Most of all, if I can arouse your interest and stimulate you to think out solutions of your own garden problems, I shall feel that I have done you real service. Seems to me I've heard it said that to be educated is not so much to have a multitude of facts and figures actually in stock, on the shelves of your mind, as to know just where you can lay your hand on a fact when needed. So in referring you to the sources of information (in closing pages of this talk), I am assisting you to a liberal education.

Of course, a fact in the head is worth two in the book. Edison seems very strong for the man who can deliver the goods right off the reel, without having to send in a requisition to the educational stock room. So the more you can learn about gardening the better. Happily, such knowledge, as well as all other, cannot be cornered, and rare indeed is the man or woman—yes, and the child—who cannot give us a tip on something we wish to know. Therefore, improve opportunities to swap gardening experiences. Don't be too selfish, but remember that after you yourself have talked, you know just as much as you did before; but after you have listened, you know as much as you did before, plus what you have heard. That's why I'd rather listen than do all the talking right now. But I've done a good bit of listening and expect to do a lot more. Take some garden magazines and farm papers. Swap experiences with your neighbors. Bring the subject of gardening around when you have company, at the club, the sewing circle, the "she-talk-a-way club," and so forth and so on. You'll be surprised to see how many good suggestions you can pick up.

Not a Filling Station

There's one thing more I should have included in my chapter of confessions, and that is to confess that I have a selfish motive, as well as a philanthropic one, in writing these garden secrets or talks. I feel that a seedsman owes a certain amount to his customers in the way of service, and I wish to meet my personal obligation in this connection. But to do so and still remain solvent, I must pay in a wholesale way. What I mean is that I can afford to devote the time and expense required in writing and giving out these pages, the same to all, whereas it would bankrupt me to write each customer personally regarding the problems that might be referred to me.

Having said my say herewith, I'm done, for this year at least. I feel that in giving you "Some Garden Secrets" and referring you to an almost unlimited supply within your reach, I have done my bit—and then some. I cannot give additional time to answer, personally, questions that are often referred to me, though I should like to do so. My store and gardens are at your service, and demand so much of my time and attention that my office is not a filling station, dispensing garden lore—or "free air."

Well, Doctors Also Disagree

Very likely, you will not agree with me on some points. You might wish to take issue with me, and start an argument. To such I'll simply say, that I might be wrong, or you might be wrong, or we might both be right. At any rate, I do not have time to argue the question. Take it for what it may or may not be worth, and remember that doctors also disagree—good doctors, too. For instance, a well-known and very successful Denver doctor would abolish forever the pie counter, while another dietetician of national fame, back in New England, includes pie for lunch. Peradventure, the altitude makes some difference! If so, I'd like to try a lower altitude for a while! If you have any corrections or suggestions to offer, I'll gladly receive them and utilize, as opportunity offers, in future talks. But I'll not argue. I'm busy.

I read magazine articles and books on gardening, and find many inaccuracies, and outright mistakes. These are often written by experts, so I shall not feel altogether cast down and chagrined if you call me down on some I may make. Why, I find one writer recommending Golden Bantam for earliest sweet corn and Peep O' Day for second early. Got his wires crossed, you see. Then I have a customer at Loveland, Colorado, who says he always works the soil away from his rows of onions, so they will "bow!" good, and not run to scullions. Another successful gardener at Greeley tells me he sort of hills up his onions. Now then, there you are. Both get good crops. So don't get all fussed up if you have been doing some other way than what I may recommend. Maybe your way is as good, or still better. There are no absolute rules for successful gardening. That's one reason it's so fascinating. You work out, to a great extent, your own little rules and secrets of success.

That Collar Button, for Instance

In accumulating garden information and making up your own personally conducted rules and regulations, you never know just when or where you may run on to a hint that you can put to work. I hope you will find at least one before you turn many pages here. Just one may be worth the price of admission, especially since I am not charging you anything! And after that you will wonder why you never thought of it before.

For instance, I used to have the awfullest time trying to tie my four-in-hand necktie. I could tie it, but the stubborn thing would not slip around as I wanted it to. I'd pull and tug and fuss with that tie and collar something terrible. Happened to mention my troubles to a Boulder clerk one day. He asked me what sort of collar button I used on the back of my shirt. Told him it was just the common garden variety, not very tall, but sort of semi-dwarf. The culture directions that came with it said it was for the back, so I followed the directions. Then he told me what I needed was a very dwarf variety, of low spreading or creeping habit—in short, the shortest that a Long man could wear. He made a sale and a friend right there. Now if I fail to get to church on time it isn't because I am delayed fussing and fuming with an obstreperous tie!

Stupid, of course, that I didn't think of this myself. But don't you begin hurling rocks at me just yet. Maybe you are batting away year after year, failing with some of your garden plantings, just for some simple reason that you may discover if you keep listening, or you may think it out yourself in time. Here's hoping!

"Like an Accommodation Train"

It is not my purpose to follow any logical order of arrangement of my subjects, or the alphabetical order in mentioning culture of various vegetables and flowers. Instead of beginning with asters, I'm just as likely to tackle zinnias first. Thus I can leave out some things and you may never notice it! Also, when I have talked these 16 pages full I can quit and call it a day. Years ago, back at Clear Lake, Iowa, I once heard Sam Jones lecture. He said his sermons and lectures were like an old Iowa Central accommodation train. You could just cut 'em off anywhere, attach the caboose, and the train was made up or completed. Guess that's the way with my talks. The caboose in this case will be the page of additional information you can find in leaflets, booklets and books I shall refer you to on last page.

Backward, Turn Backward!

"Bredern and sistern," said the colored pastor. "I'se a gwine to dewide disyer discose into two parts. Fust, all dat am in de text; second, all dat am not in de text. And now I'se a gwine fer to wrassle wid de second part fust." That's about my own plan, as you will see.

For my "Firstly," I'll talk about fall gardening—things that are not often included in the text or discourse on gardening—things you should have done last fall—things that are too often left undone, much to the detriment and inefficiency of your garden. Would that we might bribe Time to turn backward and give you a chance to do that fall garden work so as to reap the benefit this coming season.

I take this subject up right here, lest it might be crowded out if left for its natural place—at the end of the list of the year's work. I deem it so important that it should be considered even if many other things are slighted. All right, forget last fall, but plan for next fall. And don't you forget it!

Now for this fall garden work: First, the garden should be thoroughly cleaned up. Right now, in the fall, is when you should wage war against garden pests that have designs on your next season's garden. Late in the fall, before ground freezes, go over everything, including the ragged edges along the fences, in the alley, etc. Sort out the trash, dead vines and plants. Save the coarsest for covering pansy beds and protecting other perennials that may need it. Pile up all the rest and burn it. Still better, spread the trash over such portions as may have been neglected and have invited garden pests to take furnished apartments for the winter. About the time that fire gets started, Pa and Ma Bean Bug will think it has been a mighty short winter. Other pests will view with alarm the sudden rise of temperature.

Leaves and trash that do not seem to harbor pests, may be saved for turning under to add humus to the soil. Right now is the time to rustle some stable manure for the garden. Yes, I know it is getting harder each year to secure this much needed item for your garden, but in most localities there is still enough for the wise ones who go after it in time—before the spring rush, when everyone begins to think gardening. Get the manure in fall, because it is easier to obtain then, when few are in the market for fertilizer. A still more important reason for "shopping early" is that manure plowed or spaded under in the fall will do your crop

more good than if applied in the spring, especially if the manure is coarse, or fresh. Coarse manure is often better than fine, for the reason it contributes much needed humus to the soil. Fresh manure will not burn your spring plants if applied the fall before.

Now then, having cleaned up the garden, secured the fertilizer and spread it evenly, breaking any lumps as fine as possible, get busy and plow or spade the soil to a good depth. But do not pulverize it as you would in the spring. Break up the largest lumps, if any, but leave the top soil rather rough, to avoid blowing away. Don't worry about the lumps. Nature will pulverize them. That's her job, but she wants you to do this preliminary work. Moisture, alternate freezing and thawing will put the soil in better shape—if exposed by fall plowing—than you can beat it into by main strength and awkwardness. Sure, you will have to put on the finishing touches in the spring.

This late fall upheaval of the garden does more than put it in shape for Nature's pulverizing and mellowing work. It exposes many of the pestiferous garden pests in various stages of their development and knocks their plans galley-west. Don't forget the outlying districts—the corners, along the fences, etc. Go after these pests. Treat 'em rough.

Still More Fall Work

Hold on!—don't put up the shovel and the hoe just yet. There's a right smart of planting that can be done better in the fall than in the spring, and some that must be done in the fall only. That which must be done in fall only is planting of what are known as fall bulbs, or Dutch bulbs, as mostly grown in Holland. These are the lovely tulips, hyacinths, narcissus, crocus. Nothing doing in spring for these. Must be planted in the fall. Nature says so.

Then there are other things that ought by all means to be planted in fall if possible, though may be planted in early spring also. Chief among these are the peony, iris, phlox, hollyhock and even pansy plants. Peonies and iris head the list, however, and do splendidly planted in fall. Then they step right off very early in spring without delay and make much better growth than if planted in spring. Next best, is very early spring planting. One fine thing about this fall gardening is that there is a long season for it. Weather usually fine. No need to rush. Take your time, just so you don't lie down on the job altogether. Then when spring storms come and you get all fussed up about the delayed garden work, you can sit back and enjoy one hunk of satisfaction when you recall that fall planted stock.

"Women and Children First"

While I hope to drop a thought here and there that will be of interest and value to many of you old-time gardeners, yet in so brief a space I cannot cover much of the ground of special interest to large market gardeners. My plan is to deal mostly with the problems of the small garden—the home garden, if you please—and to help especially the amateur. And since the "women folks" and the kiddies are responsible, to a large extent, for results in the home garden, I might be pardoned for using the expression above, "Women and Children First." Now, Daddy, don't you get peeved and stop right here. Just stay with us to the end, and you may learn something worth while, too.

Put the Garden to Bed

Here's where you need to "use discretion." In providing winter protection for plants, many gardeners overdo a good thing by applying too much cover. Get the idea, once for all, that the protection is not so much to keep the frost out as to keep it in, and you will have better "luck." It is the drying out of the soil, the alternate freezing and thawing, and the whipping by the winds, that harm our plants in winter. And, strange to say, the danger is greater in our mild Colorado climate than in some much colder sections. This for the reason that where snows come early and remain all winter the snow gives the needed protection.

In our section, we cover raspberry bushes completely with soil, after bending them down as close to the ground as can be done without breaking them. This should be done before the leaves have fallen. Some cover grape vines the same way; others let them rustle for themselves. It is hardly necessary to cover grapes. Strawberry plants usually come through fine with us, with no winter protection, but if you do mulch them with straw or coarse manure, be sure to put most of the covering between the rows and plants and very little, if any, on top of them. A little coarse covering on top is good, but be careful. Don't smother the plants with heavy coat of manure.

Pansies usually live over if covered and cared for as suggested in my special instructions for growing pansies, given on another page.

About all I use for putting my gardens to bed is excelsior, dahlia and zinnia stalks. Nothing very heating about these, thrown lightly over the beds. Yes, leaves are good for some things, but apt to smother such plants as pansies. I never use them on such small plants. They are all right to work in around rose bushes and other shrubs. Some protect roses by forming a mound of dirt up around each plant, 10 to 12 inches high, just before the ground freezes. Later they may put on a covering of straw or leaves. Or, the latter may be used without the hilling up.

Be sure to anchor all covering, if you have winter winds like we do here. By leaving some dirt on the Colossal zinnia roots and turning the root end of the plant west, toward the prevailing winds, these seldom blow off. The excelsior is held in place by poultry wire, well staked down. Where available, pine boughs are excellent, or even brush without foliage will answer for many things. Peonies, iris, gypsophila, need no protection, though a thin coarse covering for newly set peonies, also hollyhocks, is advisable. Remove covering early in spring before much new growth can be detected.

To Grow Stunning Zinnias

There, I said I might tackle zinnias first. I've sort of got zinnias on the brain, I guess. Anyhow, I'm crazy about them, since we have now the new monster varieties in such dazzling and stunning colors. In fact, they are all the rage now, these wonderful zinnias. And it's no wonder! Day after day I hear the same exclamations from visitors to my gardens: "Why, I never saw such zinnias! Honestly, are those really zinnias? Well, well, I've got to have some myself next year!" These zinnias are thrillers, all right.

The splendid thing about this is that you yourself can grow them just as fine as I can. It's easy if you know how. And you'll know how in just another minute. All I do is to use the best seed the world produces, of the

Colossal and Dahlia Flowered strains. Plant right out in the open garden about ten days before I think the last spring frost will come. But I'm getting ahead of my story. I should have begun by saying I select location exposed to sun all day if possible. Zinnias are sun worshippers. Then I sure do give that ground a heavy dressing of manure before plowing. Fall is best, but spring will do. Seems like zinnias will stand almost any amount of manure, if well mixed with the soil.

I plant in rows about two feet apart, covering the seed $\frac{3}{4}$ inch, then keep the ground moist until plants show up. Begin cultivating soon and keep it up until plants half grown. Thin the plants to nearly a foot apart in row. Transplant if needed elsewhere. Very easy to transplant.

One thing more. I give them lots of water, alternating irrigation and cultivation. Use either overhead sprinkling system or ditches along the rows. That's all—except to enjoy the sight when they bloom, and see others do the same. I sell a good many as cut flowers. They keep branching out and throwing out new flower stems and blossoms, so you hardly miss a lot you may cut. Have a customer in Denver who makes a bunch of money selling these zinnias to customers who call for them at his garden. Size of plants and flowers can be increased by a top dressing of manure after plants a foot high or so. Pulverized sheep manure is fine for this.

Tools and Their Use

While wheel hoes, seeders, etc., are very helpful in the small garden and almost indispensable for extensive operations, yet for the ordinary home garden not a great many tools are needed, and some of these can be made by yourself.

You should have a good medium-size hoe and rake, strong spading fork, small but strong garden trowel. A three-prong cultivator with long handle is a very valuable tool. These are made with five prongs or teeth also, but three will pull easier and do a lot of work in a short time. With this tool you back up and pull the cultivator towards you, giving the soil an ideal treatment, and leaving it loose and mellow, with no foot prints to pack the soil. The trowel comes handy in many ways, for transplanting and digging around in close quarters. For still finer work, get a common putty knife, one with blade running through the handle and riveted to it. You'll be surprised how often this knife can be used for weeding, thinning, and stirring the soil between small plants. Saves a lot of time and does the work better than could be done otherwise, in many instances.

Such tools as markers, levelers, etc., you can make as needed. A piece of 4x4 two feet long with stick nailed to it for handle makes a good leveler. A 2x4, 12 to 13 inches long, with laths nailed to it, for teeth, projecting half an inch, serves as a marker for making little trenches across the beds for fine seeds. The lath can be spaced as far apart as you wish the tiny rows. I use such a home-made tool for marking out my pansy beds. Laths are nailed flat against the 2x4 and about 2 inches apart, so by drawing it across the bed it makes 5 rows at a time. Most anything will do for a handle, as there is no strain put upon the tool in use.

Plowing the garden saves hand work, but there are always some corners that should be dug up with the spading fork. A fork is much better than a shovel, and requires

much less man power. Whether the garden is plowed or spaded, the ground should be broken up fine right then and there. Smash the lumps with vigorous strokes with the fork as the soil is turned over. Here's a case where "a stitch in time saves nine." Follow right up with the rake and pulverize as deep as the teeth will go, especially if for small seeds. For large seeds, such as peas, beans and corn, less vigorous treatment is required. This immediate pulverizing of soil is for spring treatment, not for fall. Leave the fall spading or plowing rather rough, as mentioned elsewhere.

Few people know how to use a garden rake to best advantage. If there are lumps and clods, many gardeners will rake mostly towards themselves and accumulate most the lumps at their feet, and leave many more just under the surface. A rake should be worked full capacity both going and coming. Push it deeply into the soil, both ways. Strike the clods smart, quick blows with the rake teeth and you will be able to annihilate the whole works, and leave the bed with fine soil several inches deep—just the ideal seed bed. Then again, the rake can be used instead of the hoe many times. Try raking many kinds of plants when small, by pulling the rake right across the rows. You may kill some plants, but usually they need thinning anyhow. This stirs the soil right where cultivation does the most good at this stage. Keep the rake busy also trimming up rough places from time to time. It gives the garden a tidy appearance, as well as helps prevent baking and packing of the ground.

As the plants grow larger, use the hoe and three-tooth cultivator more, keeping the soil good and mellow and making it decidedly uncomfortable for the weeds. At times, try taking off all but one tooth of the cultivator for close work that might otherwise have to be done down on your knees. It's surprising how much execution can be done with a very small tool if kept in motion.

Use Hoe More, Hose Less

We who have city water, or ditch water at our beck and call, are apt to use too much water and neglect cultivation. When seeds are germinating and while plants still very small it is fine to give a light spray often. But after the plants get well started then we should give heavier waterings, and fewer of them, cultivating between irrigations, and depending more on cultivation and a dust mulch for moisture. Too much water tends to pack and sour the soil. Light and frequent sprinkling encourages the roots to stay near the surface, instead of going down deeper and finding more plant food, also fortifying themselves against possible drought or neglect later.

Park Your Hens at Home

Time and again customers have told me how a neighbor's White Shorthorn pullet or Jersey Red rooster has wrought havoc in their pansy beds, or laid waste a promising crop of tender lettuce or luscious Laxtonian peas. When I say, "Why not kill off a few—fried chicken is sure fine, and even roast hen is nourishing," they reply that otherwise the owners of these Bolsheviks are fine neighbors, and they hate to have any trouble with them.

Now, friends, listen! You have my permission to keep all the chickens you wish—but please park them on your own lot. Look to your fences. If clipping one wing does not suffice, try clipping the tail—close behind the ears. There, I knew you meant all right, but have been careless. Glad you see the point. In behalf of your neighbor, I thank you.

How to Grow Beautiful Flowers from Seed

By observing these general suggestions you will be able to grow the different kinds of flowers, even though I do not give cultural directions in connection with each number on my list. Read this page once a week all season. I've boiled it down; there's a lot worth knowing and practicing in these few lines.

DO RIGHT THING AT RIGHT TIME

Unless your soil is quite sandy, be very careful about working it when too wet. Take a handful and squeeze it into a ball. If it fails to crumble when pulled apart, then it is fine for making marbles or 'dobe bricks, but too wet for working. Lay off until it dries out a bit more. You will gain in the long run. Some soils will not get over such handling, the rest of the season. You may work it down apparently fine, but there will be small lumps that will not pack well around the seed. Many times such soil will let the air in to the seed, dry it out and prevent germination.

PREPARING THE SEED BED

Next to securing the best of seeds is the matter of preparing the soil at the right time and in the right way. Every year I tell you to plow or spade up your gardens in the fall, leaving the ground rough so that Nature can work all winter for you. Freezing and thawing the clods and making the ground mellow and fine for spring. Late fall plowing will also put a finish to many insect pests. I note that few people do this, but that's your loss.

You must have the surface fine and mellow to get best results, especially for fine seeds. After spading, use the rake vigorously and don't quit until you have the top soil as fine as possible.

For convenience in sowing, cultivating and picking the flowers, I like to lay off my gardens in beds about four feet wide, working from the paths and not tramping between the rows in the beds.

SOWING THE SEED

The finer the seed the shallower it should be covered. Petunia and other very fine seeds should be barely covered, other seeds that are larger should have one-fourth of an inch of soil over them, while the still larger seeds like nasturtiums and sweet peas may go down one to two inches. In this and all other work in your garden just use common sense. Imagine yourself one of the seeds and think how you would like to be treated. For extra early plants you may start the seed indoors, but for most things I prefer to wait until they can be sown in the open. I prefer the hardy, husky, outdoor-grown plants.

GERMINATING THE SEED

The smaller the seeds and the shallower they are sown the greater the danger of the light covering of soil drying out before the tiny roots get a good foothold in the ground below. Here's just where many people fail and then blame the seed and seedsman who supplied it. As a matter of fact, seeds retain their vitality for years and it is indeed seldom that failure to germinate is due to poor seed. You must neither cover the small seeds too deep nor let them dry out a single hour if covered shallow. On the other hand, you can prevent germination by flooding and keeping soil excessively wet.

Now here's a secret! After sowing and covering fine seeds very shallow, spread a thin layer of excelsior, torn to shreds, or coarse hay or straw over the bed, holding it in place with poultry netting well staked down. Or if the netting is not at hand use brush,

cornstalks, or anything that will not smother the plants. Burlap may also be used in place of the excelsior. This prevents wind blowing the soil and seed away, and prevents seed from being floated into piles when watering the beds, and keeps the soil from drying out. As soon as the plants show up, then remove the covering.

It took me a number of years to discover that many of my failures with small seeds were due to my not getting them covered, and to slight neglect, just at a critical stage, which allowed the soil to become dry, killing the tiny roots just starting.

This drying out is a serious matter and I can't say too much in trying to impress on you its importance. You see, at best, the tiny roots from small seed are very close to the surface. Just the least dryness, and it's good night for them. That's why I advise the excelsior, burlap or cheese-cloth covering.

I used to sow pansy, aster and other small seeds on top of bed and rake them in—or try to rake them in. Now I either sift a thin layer of fine soil or sand, or the two mixed, over the seed, or, more often, I make shallow trenches with a stick or marker, sow the seed in them and cover. Sometimes I make these tiny furrows close together and sow the seed broadcast, then rake it all over gently and evenly. This gives the seed a 50-50 chance of getting covered a suitable depth. And if half the seed germinates the plants will be thick enough.

CULTIVATING AND WATERING

Weeds are great bluffers. Get after them from the very beginning in a manner that will give them to understand that they might just as well give up the battle first as last. However, weeds are useful, for they keep us digging and scratching around the plants and thus giving the top soil just the treatment it needs, but without them many would forget to keep the soil so thoroughly worked.

Remember that plants need air as well as moisture. Keep the soil loose.

Furthermore, frequent stirring of the soil conserves the moisture and if you will "Use the hoe more" you will need to "Use the hose less." Most people water their plants too much and do not cultivate them enough, and for that reason I have adopted the slogan, "Use the hoe more and the hose less." That's where you have a hose, of course. The same applies to irrigating from a ditch. Dry farmers get good results by using the hoe often. When I say hoe I mean anything from a hairpin to a tractor that will stir the soil. I use a garden rake a great deal in place of a hoe when plants are small. With some plants you can rake right over the rows without injuring the plants. Rows of gladioli from bulbets can be raked until plants are six inches high.

NOT ALWAYS TRUE TO COLOR

Do not be surprised if flowers planted in separate colors do not all come true to color. There is always a chance of slight mixing in the handling of seeds, with the best of care. Moreover, plants will "sport" at times. That is, they will produce flowers different from any known distinct variety. This is a virtue instead of a fault, for many of our finest varieties came by chance in just this way, the grand Giant Spencer sweet peas being a notable example. The new red sunflower, which originated here at Boulder, is another example. Zinnias do not all come true to color.

How to Grow Gladioli

The gladiolus is propagated in three ways: By multiplication of the large bulbs, by the tiny bulblets that are found around base of bulbs when digging, and by saving seed that sometimes develops on top of the spike. Stock from bulbs and bulblets comes true to the original, but seed does not. Growing from seed is slow and somewhat difficult, taking several years to get blooms, so I shall consider the first two ways only in this limited space. Gladioli do not mix from growing near other varieties.

WHERE, WHEN, HOW TO PLANT

Plant in any good garden soil where they will have plenty of sunshine. Don't forget that Glads love sunshine. They do best right out in the vegetable garden, or under same conditions as vegetables are grown. Plant any time from early April until June. Good idea to plant some every two weeks to keep a supply of flowers coming on all summer and fall.

They bloom in about 90 days from planting, depending on variety, vigor of bulbs, depth planted, culture, season, etc.

As I've often said, "Standing room only" is all that Glads require. Mass them in rows or beds, setting the bulbs 4 to 8 inches apart. If in rows, set double or triple rows. Dig trench, set bulbs where wanted, fill trench and job is done.

Cover small bulbs about 3 inches, larger ones 4 to 5 inches. The new bulb is formed on top of the one you plant and if too shallow your flower spikes will blow down. Deep planting saves staking. Hilling up around the plants also helps to prevent blowing over.

Cultivate between rows, and plants in the rows, often, keeping soil loose and porous. Water frequently. Glads like lots of water, but with good cultivating will get along with less water.

USE GLADS FOR CUT FLOWERS

While Glads make a nice display in the garden, yet they are much more valuable and satisfactory as cut flowers.

Cut them just as soon as the lower blossom opens. Cut stem so as to leave 4 to 6 leaves on the plant to mature the bulb. Place in vase of water and the buds will open from day to day just as they would in the garden. As the lower blossoms fade, pull them off, so as to keep the bouquet looking tidy and cheerful.

Keep watering the Glad beds after flowers are cut or have quit blooming, so as to mature the new bulbs. These do a good part of their growing after flowers appear.

DIGGING AND STORING THE BULBS

After frost in the fall, dig the bulbs and cut stem off at once about one-fourth inch above bulb.

Save the larger bulblets of such varieties that you care the most for. Do not expose the bulbs to hot sun or frost, but they may dry a day or so in the shade. Hang up in porous bags—a common sugar or burlap bag is very good. Or, use shallow boxes. Store thus in cellar or any place where they will not freeze or get too dry.

HANDLING THE BULBETS

Before planting remove the old bulb. Plant the bulbs and bulblets separately. Sow bulblets thick in a row like peas, 100 to a foot or two of row—and cover about one inch. Soak bulblets—not bulbs—a day or two before planting. Water should be kept luke warm. Keep them thoroughly wet after planting.

These bulblets will make small bulbs by fall, which, planted again the next spring, will mostly bloom and all should make ideal bulbs for the year after that.

To Grow Fine Sweet Peas

One secret in growing finest sweet peas is getting them into well-prepared ground rather early in the spring. True, later plantings often do well, but the sweet pea thrives best under rather cool, moist conditions. If given a chance the sweet pea will send its roots way down deep into soil that keeps somewhat cool and moist even in hot weather. But it must get an early start to make this deep root growth. Deep digging and pulverizing of the soil encourages this deep root development.

It is not necessary, however, to break your back digging a ditch deep enough for a water main, though some trenching is good. In doing this, lay aside the top soil, dig and pulverize the subsoil, mixing manure with it, then put back the top soil. Many growers do not fill the trench quite full, but draw the soil to the plants as they come up. But planted on fairly good soil, well-worked up, and on level ground, sweet peas will usually do nicely. A good scheme in either plan is to make a trench say nearly a foot deep right up close to the sweet pea row. Fill this trench with manure. Some soil may be put on top. Then during the season turn water into the trench once a week or so. The enriched water will find its way to the sweet pea roots and stimulate growth. A little bone meal worked into the soil at time of planting is also good. But use this sparingly, as is very strong. Avoid use of fresh poultry manure.

An ounce of seed will sow from 15 to 20 feet of row. Make furrow with hoe, and see that bottom of furrow is rather flat or U shape, instead of V shape. This gives each plant more feeding ground. Cover an inch or little more, firming with the feet if ground not wet. Begin cultivation as soon as plants are up and keep the soil well-loosened as the plants grow. Water by running a small ditch along the row, giving a good soaking once a week or so, rather than just a little every day. But the sprinkling system may of course be used instead. Lice or aphids often check the growth. Watch for them. Spray with contact poison, getting under the leaves, where these pests are most numerous. Remember you can't kill lice by putting poison on the plants. The tobacco or kerosene emulsion must hit the lice to do the work. Dashing the vines several times a day with the hose checks the work of lice. Give the vines support and train them to it, beginning early. Keep blossoms picked. The more you pick them the more and longer they will bloom. To pick sweet peas, grasp the stem close to where it is attached to main branch, push towards, not away from, the branch. It parts easily from branch this way.

Make a Good Beginning

I don't care whether you run your rows east and west, north and south, or catty wampus, but do make them straight! Really, it doesn't take much more time at all. Keep a strong jute cord handy and run a line when planting. You will, I believe, enjoy working in your garden the more if you make this right start. Don't listen to the fellow who argues that he can grow more in a crooked row than in a straight one, because a crooked row is longer. I'll just bet he will not do it, even if he could, for the fellow that takes pride in his straight rows is also likely to give his garden better care than the crooked row fellow, and will beat him in yield.

How I Grow Pansies

In the first place, I use only the best seed, my Super-Giant strain that I've improved from year to year by careful selection, and adding a little from time to time when I find something extra good offered by some other growers.

A little shade is good for pansies, but very much is not. Much shade produces soft, gangling, weak plants and few blossoms. Most all my pansies are grown right out in the open garden, with no shade at all. But good seed alone would not produce the gigantic blossoms to be seen in my gardens. The soil must be rich for best results. Not too much manure, nor too fresh, should be applied, for it might burn the plants or cause them to turn yellow. But if the manure is well mixed with the soil, especially if this is done the fall before, the plants will stand a lot of such fertilizing.

My own beds for blooming are almost always set out in the fall. That gives them a big start early the next spring, and produces the long branches and extra large blossoms that we sell as cut flowers for Memorial day. Next best thing is to set them out early in the spring, the earlier the better after ground can be worked. I'm talking now about my outdoor-grown plants, that stay in the open garden all winter with little and sometimes no protection. You could not safely plant the forced, tender, hotbed kind so early.

Plants may be anywhere from 5 to 12 inches apart, according to room. My rows are about 20 inches apart and the plants about 6 inches in the rows. Sometimes the plants just about cover the whole space, and are almost "knee high" at their best. This is the result of good seed, rich soil, planting at right time, frequent cultivation, and plenty of water.

After pansy plants have bloomed luxuriantly for a while in rich soil, and have been mauled over a good deal in picking the flowers, they get tall and ragged, and flowers not so large. Then I shear off the beds within say an inch and a half of the ground. New sprouts start up at once and in several weeks the beds again begin to bloom, and plants are more compact and sturdy. In picking pansy blossoms I always take part of the branch as well as the stem. Thus the branch, leaves, stem and blossom, make a cut flower one may never have believed possible from a pansy bed. And it doesn't take many such branches to make a nice-sized bouquet. Cut this way, pansies can be used in vases, and last a number of days. Taking the branch, down within two inches of the root, is good for the plant. Others will grow.

I know of only three pansy pests. One is a special pansy worm, not numerous, and can be dealt with by hand picking, though arsenate of lead could be used. Lice and red spiders are the other two. Lice can be controlled by frequent spraying with tobacco solutions, mentioned elsewhere. Presence of ladybugs indicates lice. The ladybugs will, if plentiful enough, clean up the lice. Don't kill the ladybugs. Red spiders protect themselves with their fine webs, so it is hard to deal with them. Best method is frequent sharp spraying close to and all over and under the plants, with hose. They can't stand much of that.

Pansy seed sown outdoors about middle of April should produce plants that begin to bloom last of June, and continue blooming until ground freezes. Protected a little, as I have suggested, these plants should live over winter and begin blooming early the next

spring. An earlier start may be had by sowing the seed indoors along in March. Takes 12 to 20 days for pansy seed to germinate. Any dryness during this time means failure. See notes on germinating small seeds elsewhere. My favorite time for sowing is August 1st to September 25th. The plants I sell are from such sowings. Many of you may find it more satisfactory to buy the plants at the low price I sell them than to bother trying to grow them yourselves. Practically every customer is pleased with these small, sturdy well-rooted plants, and surprised to see how quickly they establish themselves and get right down to business turning out delightful blossoms.

Our Boulder climate is milder than in many places, though we do have real winter at times. Some of my older and stronger pansy plants are just left to rustle for themselves. I don't cover them at all, and they usually come through all right. The smaller ones, from fall-sown seed, I usually cover with excelsior, torn to shreds and spread over the beds just so it hides the ground—simply to prevent soil drying out and thawing out too much, and keep the winds from whipping the plants. This covering is held down by poultry wire well-staked along each side. My beds are 120 feet long and 3 to 4 feet wide. I use the excelsior on the very smallest plants from latest fall sowings. Other beds are covered by throwing the old dahlia and zinnia stalks over them. I'd use brush, too, if I had it. All covering comes off very early in spring, to keep the plants tough. Tops of plants thus wintered are tough and sure look tough at first, but the roots are strong and if the roots are good the tops soon come on fine and dandy. I might explain that the rich soil I mentioned is for permanent beds only. The small plants for spring are grown in ground not very rich, in accordance with my plan to develop strong roots and not force the tops before sending out to be set in your gardens.

How to Grow Asters

The aster does best when brought to flower late in the season. It comes in after many other flowers have come and gone, and will bloom right up until rather heavy frosts. However, a succession is desirable, and can be had in several ways. By planting seed at intervals of several weeks from March indoors to last of May outdoors, you can prolong the aster season a number of weeks. Planting early and later varieties at the same time will also accomplish this to a considerable extent. My mixtures of various kinds in separate colors and all colors mixed, contain varieties that will not all bloom at once. Royals are medium early, Crego and Astermum a bit later, and Boulderado Beauties largest and latest of all.

Asters transplant easily and may be started indoors, but do very nicely sown outdoors any time after early April. They stand quite a little cold. Read about germinating small seed elsewhere. Plants should be set or thinned to 6 to 10 inches in the row, and rows a foot or more apart. Extra rich ground may cause stem rot. Fairly rich ground is good, but should not be given fresh manure. Just good garden cultivation and watering should produce a fine crop, though more or less of the plants may be taken with the blight, for which there seems to be no definite preventative and no cure. A good rule is to plant more than one expects to pull through unharmed, so that after some may drop out during the season you will still have a good supply left.

Some Dahlia Secrets

Dahlias are propagated in three ways. The most common method is by planting a bulb—correctly speaking, a tuber. This tuber produces a large plant with as many stalks coming out of the ground as there were live eyes on the tuber. One is best, though two do pretty well. More than two are too many, and any extras should be cut off below the ground. This plant or hill, produces by fall, a clump of tubers, all attached around the base of the stalk. The eyes of these tubers are always close to the end that is attached to the stem. In fact, the eyes are located on the stem or at the junction of tuber and stalk or stem. Nail this fact right now, for it is exceedingly important to know it.

Never plant the whole clump, taken up in fall, the following spring, as will produce too many stems, which will be slender and weak and produce weak flowers. Divide the clump by cutting down through the stalk, leaving a portion of the stalk with each tuber, so as to get an eye for it. By keeping the clump damp and warm, in soil or out, the eyes will start to sprout, and then you can see where they are. A tuber without an eye is absolutely worthless. Dividing is a strenuous job, but must be done. Professionals use a large size one-hand pruning shears. Other tools that will help some are chisel, or good butcher knife. A safety razor is not recommended.

Professional growers get so expert in dividing tubers that they not only try to get a tuber for each eye, but even divide an eye, getting two plants from one eye. This is done on new and expensive varieties to increase the stock as fast as possible. One could keep on and on, and still find something more to tell about the growing and handling of dahlias. I must not close without cautioning you about handling clumps. If you treat 'em rough, you will injure or break the necks of the tubers. A tuber with a broken neck is about as full of life and pep as you would be with your own neck broken.

The size of a dahlia tuber fools a good many amateurs. Most people think they have drawn a prize if they get a great big tuber, whereas such may be all right, or it may be much less valuable than a smaller one. Different varieties vary ever so much as to shape and size of tubers. Some make quite small ones, while others produce large, ill-shaped tubers that are hard to handle in dividing and mean to pack and ship. I had to discontinue one really good kind because some of the tubers were almost as big as my arm. Would have to ship by freight or lose money on them! Even an eye without a tuber will grow and produce a good plant, if handled right.

That's so. I forgot to tell you what to do with dahlia tubers when received before time for planting them. If left to lie around they may dry up so much that will not sprout. It's easy enough to keep them in good condition, if given a little attention. If they come packed in moss, save the moss, dampen it a little and keep the tubers wrapped in this moss, examining every week or so, to see that the moss has not dried out. If getting dry, dampen a little more from time to time. If no moss available, just use newspapers, dampening a few layers next to the tubers and wrapping in plenty more to prevent rapid evaporation. No harm is done if the tubers sprout, but just before planting, cut sprouts off within half inch or so of the tuber. Or, if sprout is short and sturdy,

leave it on, planting carefully with sprout up. Weak and spindling sprouts should be clipped off, however.

Tubers should be planted any time from early April to June. Takes three weeks for them to come up. May be covered if frost comes after plants are up. If young shoots do freeze, they are not lost. Cut them off at once just above the ground. They will come on again, from tubers.

Last of April and early May are safest dates here. Not much is gained by earlier planting. I always wind up my planting the last of June, and usually get by with it very nicely, as my gardens are so located and protected by the nearby mountains that we do not get the first fall frosts. In general, from last of April to June 1st is best. Ground should be dug deep, 10 to 12 inches. Lay the tuber flat—get that? Cover 4 to 5 inches. Hills should be about 2 feet apart in row, and rows 3 feet or so apart. Cultivate, cultivate! Water moderately until buds appear and from that on give lots of water, not frequent light spraying, but good deep soaking once every 5 or 6 days. Shade or excessive fertilizing, or both, tend to produce luxuriant foliage, but fewer blossoms. Just fairly rich ground is O. K.

In the fall, after killing frost, cut tops off near ground. Dig very carefully with spading fork, so as to unearth the clump without damaging any of the tubers clinging to base of stalk. Hold the clump in one hand, and tap top or side of the stem to loosen the soil. Soil may be left on, but makes a lot of heavy work. Cut stem once more, this time within inch or little more of where the tubers are attached to it. Lower cutting might leave too many eyes on the discarded stem and too few with the young tubers. If taken up when ground is wet and sticky, a hose may be used to wash the soil out from among the tubers.

Without further delay—in our dry climate—take the clumps to a dry cellar or basement, safe from frost. Pack in boxes or barrels. If these not tight, line them with paper. No soil, sand, leaves, etc., needed, though might be used if desired. Watch these clumps during the winter. Must be dry enough not to mould, yet must not dry out and wither. If seem too dry, spread damp newspapers or cloth over tops of barrels or boxes, as often as needed. Keep them away from furnace. However, if do shrivel badly, don't despair, for they may grow anyhow. Divide any time in spring. So much for dahlias from tubers and divisions of tubers. Just a word more. Dahlias do not mix, planted close together. They come true, from tubers.

The third method of propagation is from cuttings. This may be done, and usually is, by planting the clump or divided tubers in the greenhouse and taking the young shoots, rooting them and potting, to be set out later in the garden. But you can do this—if you are patient and watchful. When your plant from tuber is a foot high or more, out in your garden, cut out the middle, so as to get two or three pairs of leaves with it, and leave several pairs on the original plant. The plant will throw out new side shoots and take care of itself, making more of a bush than if center not cut out.

Now pinch off the two bottom leaves and plant this cutting in any good garden soil, giving shade most of the day for a few weeks. Keep watered and give it time. I have done this and produced plants that bloomed nicely, thus making two dahlias bloom instead of one.

Dahlias from Seed

No department of my gardens gives us more pleasure—I might say excitement, as well—than the dahlias grown from seed.

This is the way, and the only way, that new dahlias are originated. You can originate new and splendid dahlias yourself. Some professional growers hand fertilize, making certain crosses that influence results to some extent, but others simply sow seed gathered at random from their choice varieties and let them come their own sweet way—"Happy-go-lucky; Hit-or-miss." Then from many of these blooming plants, one here, another there, is marked and saved for further propagation.

When sufficient stock is worked up the new variety is given a name and offered to the public, usually at \$2 to \$5 each at first, if it is one of real merit, and only such are supposed to be saved and introduced by professional or commercial growers. Later, as the supply of tubers increases and newer ones come along to attract the attention and pocketbook of dahlia fans, the price is lowered. I'm buying a new variety, originated without hand palonization, at \$5 each, for small one-eye tubers, and will offer it at a lower price in a few years. Will have some other dandies of my own origination, also.

But I started to tell you about some of my own seedlings grown last summer. I gave the children each a few plants of their own and it was fun watching the kiddies compare and praise their own new dahlias. Everett came running to me one day, saying: "Just think of it! My red dahlia measures seven and a quarter inches across!" And sure enough it did, right out in the garden with no special care.

Visitors who went through my fine named varieties would stop at these seedlings also and rave over them. That is the best compliment I could wish. You understand of course the sense in which I use the word "rave"! There was one that I feel deserves the name, Moon, as part of its name, but the moon seems to be overworked of late. We already have Moonbeam, and I'm not sure but what there is a dahlia by the name of Moonlight. I might call it Moonshine, but just now that name is not altogether popular. This is the charming peony type, the color a soft, melting cream. It's a dream. Then I had another peony flowered one of rich maroon color. Some Colorado Springs visitors were so charmed with this that they insisted on having it, in preference to the many named kinds, so I let this one go.

50 Years Ago—And Now

"What's this world a-comin' to?" asks the pessimist. "It costs twice as much to live now as it did 50 years ago!"

To which the optimist replies: "Yes, it does, but I'll say it's worth it. Why, man, just think of the auto, paved roads, Y. M. C. A., Greeley Wonder melon, aeroplane, pressure cooker, Spencer sweet peas, Lions club, Golden Bantam sweet corn, party line phone, Colossal zinnias, phonograph, rural delivery, Laxtonian peas, business doctor, Brittle Wax beans (string beans without strings), Rotary club, Crimson Giant radish, Henry Ford, movies, Super-Giant pansies, Red Cross, Long's giant asters, votes for women, Long's seed catalogue, farm bureau, Colorado Chautauqua, Hazel onion sets, painless dentistry, Orange Prince marigold, vacuum cleaner, Everbearing strawberries, Kleckley Sweet watermelon—you bet! It's great to be alive, even if it does cost twice as much as it did 50 years ago."

Why Is a Weed?

How many times have we wondered why in the world there should be such things as weeds, also insect pests. I'm still wondering about the latter, but have a very firm conviction that the weeds serve a good purpose in one way at least. If weeds didn't grow as they do, the most of us would just naturally neglect the important matter of cultivating our plants. We might say we wouldn't, but I'll just bet we would. Our gardens need frequent stirring of the soil, both between the rows and among the plants, and it is in getting after the weeds, or trying to get the drop on them, that we give our plants this much needed cultivation, letting air in to the roots, putting the food elements, that the soil contains, into such shape that the plants can get hold of and utilize them.

Don't Kill Big Weeds!

No, I don't mean you should let them remain and go to seed. Don't worry about the weed seed crop for next year. There will be ample of this anyhow. What I mean is, don't ever let the weeds get big. Cut them down, or pull them up, in their tender youth. Funny, isn't it, how we think we are really doing something great when we slaughter large size weeds, but we don't feel half that glow of satisfaction when we kill 'em off when small and when it is so much easier done. But the time to get the weeds is before they take their toll from the soil's fertility. Frequent raking, hoeing and cultivating will get the weeds just as they are sprouting or opening their eyes on a very unfriendly world—for the weeds.

How to Transplant Weeds

This is easy. It's a natural gift with some gardeners. Simply have the ground wet when you go forth to give the garden the once over. Cut the weeds off well under the roots, but don't scatter them about. Follow the hoe with your feet, packing the recently loosened soil as you go. Then to complete the job, turn the hose on before the soil has had time to dry out well after hoeing. This treatment is practically sure to leave a good stand of weeds, full of life and pep.

Headwork and Footwork

Headwork is needed in all garden operations. Footwork is valuable at times also. For instance, when sowing and covering seed in rather dry ground, firm the soil well by walking right over the row. This brings the soil in close contact with the seed and prevents further drying out. Often seed will sprout planted this way, whereas if left with only the loose soil over it, would fail to germinate. Use the rake gently over the row after this treading. In transplanting roots, shrubs and trees, it is important to tramp or tamp the soil very firmly.

Burning Seeds and Bulbs

I know a lot of families who think they just can't afford anything more than the bare necessities for the home garden. They can't figure out an appropriation for a few nice flower seeds and bulbs. They really feel that way about it.

Yet they think nothing of taking a needless spin in the flivver of ten, twenty or fifty miles. Every mile burns up a packet of flower seeds or a gladiolus bulb. "Man has two great ambitions in life. One is to own a home; the other, to own an auto to get away from home." Funny, isn't it? Maybe if said man would go stronger on flowers around said home he might not be so eager to get away from home.

Everbearing Strawberries

Prepare ground thoroughly. Make the soil very rich, if possible. Get true Everbearing plants. Progressive seems to be the best variety for general use. Get plants near enough so will not be in the mails more than a day or two.

Space the plants 12 to 18 inches apart in the row, and rows 2 feet or more apart, according to room to spare and whether to be worked by hand or with horse cultivator. Plants should be unpacked immediately upon arrival, and if ground not ready or weather does not permit of planting, don't worry, but heel the plants in, spreading the roots out well so each root comes in contact with the damp soil.

Before planting, take time to trim off all leaves and runners, except just several center leaves. Also, clip some off bottom of roots, if this has not already been done. Very early shipments may show little foliage, or none, as may have been taken up before new leaves started.

Set the plant so the crown is level with the ground. Avoid burying the crown, yet get all the root under cover. Spread the roots out like a fan, so soil comes in contact with each tiny root. Never jab them in with roots tangled and twisted. Pound or tramp the dirt very firmly about the roots, especially if cannot water at once and frequently. Water each plant as set, if can, and keep them wet thereafter, putting the water on the roots and not the tops, for best results. However, spraying seems to work pretty well also. Anyhow, keep them wet.

As soon as plants have begun to take hold, begin to hoe gently about them, being very careful not to disturb the roots. If plant is loosened, tramp it back in solidly. Having started with good healthy plants, the secret of success is to hoe or cultivate often and give them lots of water between cultivations. Another big secret of success is to get your plants in early. Any time in April and even early May will do, but the earlier the better, after ground is ready and can be worked. Even if you lose a few, you will be ahead because those you save will do so much better. It is not necessary to have large roots, as the original roots die anyhow, new roots forming after planting.

The hill method of culture is one of the best, where berries only are desired. Keep all runners cut off as fast as they appear. The original plant will produce additional crowns, forming a big bush, with strong fruit stems loaded with berries, under favorable conditions. By this method it is easy to cultivate all around the plant and much hand weeding is obviated.

The hedge row method consists of training the runners into the row or close to it, thus making a wide row, yet not allowing the runners to set plants clear across to next rows. This is also very satisfactory. New plants from the runners can be obtained in this way. If plants are wanted in large quantities, let the runners go out farther.

Keep blossoms picked off the first season until July to give plants a good start. Fertilizer may be dug into the soil between and around the plants at any time to advantage. Light coat of manure or other mulch is good, put on late in fall, but put very little directly on top of plants.

As to disease, there is little to be done, worth while. Better remove all sick plants. If too bad, start a new bed in new location, using healthy plants.

Give as Well as Take

Be a good sport. Don't expect your garden to do all the giving. Treat the garden to humus and fertilizer, also liberal cultivation, to keep it in good humor. Don't worry too much, though, if unable to obtain barnyard manure, which is very valuable and should be applied at least once in several years if possible.

But as a matter of fact, the soil is very resourceful and contains much plant food, even when sometimes apparently worn out. The trouble is, the soil is not in the right mechanical condition to liberate its plant food, or put it in such shape that the plants can get hold of and utilize this food. Thorough plowing or digging over, especially in the fall, and frequent cultivation helps to keep the soil in the desired condition. But what it needs also is loosening and mellowing that comes from incorporating with it the much talked about humus. Humus is most anything in the way of decayed vegetable material. Leaves, straw, lawn clippings, etc., make humus when turned under. They lighten and create the soil, improving it wonderfully for the plants, and making it ever so much easier to handle.

Much is said about applying well-rotted manure, and this is all right and good for most anything, but often there is little strength left in such manure. Fresh or coarse manure should be used liberally, especially in the fall. If plenty of water can be had during the growing season, you can use this coarser manure in the spring if well distributed and worked into the ground. In case bulbs are planted in such soil, see that they do not come in direct contact with the manured ground. Simply make the holes or trench large and line with clean soil or sand, covering bulbs an inch or so with same material, finishing with the manured soil. Better avoid planting asters in newly manured ground. Beware using fresh poultry manure, so that it comes very near plants of any kind or their roots. It is very strong and effective after exposed a while or after being mixed with the soil some months in advance of planting, but it will sure burn the plants if fresh and gets close to them.

Commercial fertilizers are helpful, but lack humus. Used alone, and repeated for some years, they are bad for the soil. This alone is a chapter too big for me to tackle here. Use some, if you wish, but experiment and watch results. Bone meal is very strong, and good to use, raked into soil before planting, but use sparingly. Your dealer will suggest its uses. I am inclined to think that pulverized sheep manure, to be had dry, in large bags, is one of the best solutions for the small garden. Can be used all season by working it into the soil as a top dressing close to the plants.

Still another method may be employed to enrich your garden and keep the soil fit. This is the green manure or soiling method. The idea is to turn under a rank growth of vegetation, preferably peas, as peas gather nitrogen from the air and store it in the ground for use of future crops. The decaying green crop adds humus. If space permits, it is well to plant part of it to some such crop to be turned under. Or, often ground may be vacant for only part the season. Sow something on it and turn the partially grown crop under. Rye is used a good deal also. Don't keep the home fires burning—out in the street, when raking up the leaves in fall. Get them into your garden, held down with damp soil.

Pester the Pestiferous Garden Pests

Many of these pests come and go—are worse some years than others. We never know just what we may have to deal with before the season is over, but can be pretty sure will have trouble from some of them. So the sensible thing to do is to be ready to combat these undesirable citizens. "Do them as they would do you—but do 'em first." Have a sprayer ready.

First, we must understand that some pests will eat poison, on plants or put out as bait, while others, known as sucking insects, cannot be poisoned the same way. They must be destroyed by contact poisoning—the dope must be sprayed directly on the insect, and, when done right, gets his goat.

Other remedies or devices are repellants, anything having a vile odor, such as carbolic acid, kerosene, turpentine, etc. Or a substance making an irritating dust, as air-slacked lime, ashes, tobacco dust, will drive the intruders away for a time. The effect of these repellants lasts a short time only and may have to be repeated. Air-slacked lime mixed with flower of sulphur is recommended as one of the best repellants for some things. Fresh poultry manure placed close to but not touching squash plants sometimes halts the bugs. Young chickens running among the vines scare the bugs away.

Then there is physical violence, in which you go to it and pick the bugs off by hand or trap them and destroy them. The hard-shelled squash bugs may be trapped by laying pieces of boards or shingles near the plants at night. The bugs crawl under them and in the morning are sluggish, when may be captured and dealt with according to law! Aster beetles may be hand picked, as generally not a great many at a time. Some use slug shot for aster beetles.

For grasshoppers take 2 lbs. bran or corn meal, mix dry with 1 oz. Paris green or arsenate of lead. Then mix with this 2 tablespoonfuls of molasses and about 1 pint water to which has been added the juice of half a lemon. Mix all together and late in evening sow it very thin, making it into flakes almost like snow. This will prevent poisoning birds or animals. In a day or two you may not see any grasshoppers, dead or alive, and will think they did not take the bait but moved on. Careful search will disclose many dead grasshoppers hidden, for the reason when Mr. Grasshopper gets sick with a pain in his tummy he wants to be alone and drags himself off to some hidden spot.

Cutworms. The same mixture is also used for cut worm bait.

Now for spraying. Practically all the insects that trouble our Western gardens, and that can be controlled by spraying, can be handled with only two kinds of dope. For poison spray use arsenate of lead, tablespoon to gallon of water. For sucking insects (lice or aphids) use as a contact poison "Black Leaf 40," one teaspoonful to a gallon of water, or Sulphur-Tobacco soap.

There are other preparations that will accomplish the same ends, but with these two and a good sprayer you can be master of the situation in most cases.

Kerosene emulsion may be used in place of Black Leaf 40, also there are other tobacco preparations, soaps, etc., that are good, though the Black Leaf 40 seems to be the most effective. To make kerosene emulsion, dissolve one pound of laundry soap in one gallon soft water and heat to boiling point. Remove from fire and add 2 gallons of kerosene

and stir vigorously. After this is cooled, add 10 parts water to one part the kerosene dope. This may of course be made in smaller lots, just so the proportions are kept about the same.

Sweet pea lice, or aphids, should be pestered with contact poison—Black Leaf 40, Sulphur-Tobacco soap. Don't spray with Paris green or arsenate of lead. Dashing the vines with hose discourages the lice.

Lice on cabbage may be sprayed with Black Leaf 40 or the kerosene emulsion. Throwing dust on the plants also helps.

Cabbage worms may be poisoned by spraying with the arsenate of lead solution until heads are half grown, with no danger of poisoning the heads, as grow from inside. Hot water, almost boiling, may be poured right on to the cabbage plants and will kill insects with which it comes in contact, yet does little or no harm to the cabbage. One gardener says he never fails to drive off cabbage worms by spraying or sprinkling the plants with water in which has been soaked some common tar paper. An experienced Brighton (Colo.) cabbage grower uses one lb. Paris green to 100 lbs. stucco, well mixed and shaken over the plants from a gunny-sack.

Tiny fleas that eat turnips, radish, etc., just when they are coming up, may be controlled by shaking air-slacked lime or tobacco dust over the rows from a loose woven gunny sack. Ashes also help some.

Small striped melon and cucumber bugs generally give way if plants are dusted with tobacco dust. Good idea to have several pounds handy.

Corn root worm can be side-stepped by not planting corn in same place two years in succession.

This subject is too big by far for me to more than merely touch upon. Get my 10-cent booklet, "Insects and Diseases." Price 5 cents to customers, or free with a \$3.00 order.

To Kill Ants in Garden

Select a time when the ants are all at home, holding a family reunion. With sharp stick, make a few holes about 6 inches deep in the ant hill. Pour an ounce or two of carbon bi-sulphide into holes. Cover the hill with an old carpet or a Sunday newspaper. The fumes work downward and do the work. Ants may be kept off of peony buds by sprinkling them (the buds) with common pepper.

Maggobate and Mag-o-tite

Two powder preparations, used extensively on the Pacific coast for checking ravages of maggots in root crops. Positively must be used at time of sowing (about pound to 250 feet of row) and sprinkled along on top of the rows frequently after plants are up. Will not save a crop after maggots get a good start. Is a preventative instead.

Destroying Squash Bugs

"The squash bugs, like chickens, come home to roost. I found that in the early morning a very small area contained millions of them, so I hit on the plan of killing them with a blue flame gasoline torch, such as electricians use for soldering. In about an hour I killed about 98% of all I had and have not seen a colony in years, and scarcely ever see a single bug. There was no damage to the plants, as the bugs fall on the ground as soon as they feel heat and hear a noise."—H. J. Baldwin, Minnesota.

"Beat the Bean Bug"

Briefly, all you need to do is to provide a good sprayer (my \$1.50 sprayer will do for home garden, "Little Lenox" will help some), and some arsenate of lead (half pound or so) and have these on hand before the bugs show up. The full-sized bugs—the advance agents—that lay the eggs, do not, as a rule, do so much harm. Those small woolly fellows that hatch out under the leaves are the ones you need to get after and very suddenly, too.

Therefore, spray **UNDER** the leaves just before these rascals are able to "sit up and take a little nourishment." Several sprayings may be required. Spraying on tops of leaves is also worth while. Spraying soon as the big bugs come will help some. A bug can't eat and thrive if leaves all protected with arsenate of lead. Use a tablespoonful to a gallon of water. Keep well stirred or shaken up. Waiting to spray until after vines are riddled is like locking the garage after your Ford is stolen. If you spray at right times early, then you will not need to spray much if any after beans are well set. But the arsenate of lead may be removed from pods before cooking by washing them in water to which has been added some vinegar.

"Let a Little Sunshine In"

One great trouble with many home gardens, especially in town, is excessive shade from buildings and trees. Shade from buildings alone is seldom serious, and often helpful, but when intensified by that from trees it becomes too dense for successfully growing a good many things. Moreover, the trees are terribly selfish, and help themselves, unabashed, to much of the fertility within their reach—and they reach a long ways.

We hesitate to remove a tree, and the matter should indeed be given careful consideration. But often some trees ought to be taken out. It may even improve the surroundings. Next best thing is to prune them all they will stand. And by digging down between the tree and the garden spot it is robbing, you can shut off some of its activities by cutting off the roots. Don't worry about the tree. It will look out for itself—and be back on the job in a year or two.

"Equipped With Self-Starters"

Isn't it worth something to you to know that **LONG'S** Tried and True seeds are not only grown from selected stocks, but are also "equipped with self-starters"—tested and known to have life that will start them off!

Best for the West

Tried and True seeds are not only Best for the West, but are making friends all over the country, and in several foreign lands. With almost no effort on my part, our circle is growing larger and larger, so that now we often get orders in the same mail from California, Alabama, Massachusetts, Iowa, Kentucky, Wisconsin, Oklahoma, and, of course lots from Colorado and adjoining states. I originally thought of Colorado as my main field, but, as I've indicated, "You can't keep good seeds down," and far be it from me to discourage anyone, anywhere, from starting right by planting **LONG'S** Tried and True seeds, best in the Long run.

Asters like a little shade. East side of the house is good. Even north will do, if no additional shade from trees. They also like new ground. Try spading up along the edge of the lawn for asters and other flowers.

How to Grow Cannas

Cannas thrive best in warm climate, sandy soil, full sunshine all day, and with plenty of water. In general, they can be grown very nicely where corn will mature, but in localities with shorter seasons the space and labor might better be given to something else.

Canna bulbs or roots are slow to start, but make rapid growth later on when weather gets warm. The plants do not branch out, so can be planted closer than dahlias. Set the roots as close as 12 inches apart, if you wish. Plant soon as ground warms up, about middle of April to May 1st, or even later. Cover 3 or 4 inches. Frequent cultivation and plenty of water should be given.

After fall frost, cut tops off close to ground, dig and store safe from frost, in somewhat damp cellar. Or, if cellar is dry, sprinkle the roots once in a while during the winter. May be packed in boxes or set on floor. Throwing old sacks or papers over them will prevent drying out. Dirt may be left on or removed. Each spring planted single root makes a clump by fall. These are easily pulled apart the next spring before planting. Any piece with an eye or bud will grow, regardless of size, shape or appearance of roots.

The old small blossomed cannas are fast giving way to the newer, very larger "orchid"-flowering varieties.

Concerning Shasta Daisies

They may be grown from seed or from divisions of old roots. There's a difference, though. Plants from seed, Alaska strain, will be nice all right, but will not come uniform in height, habit of growth, length of stems and size of blossoms. They will vary a good deal, though will be pleasing. Seed may be started indoors and plants set out in spring. They should bloom the next fall. Even outdoor-sown seed will generally bloom some the first year. Plants live over and bloom profusely the following year.

The best Shasta daisies come from divisions of plants of uniform size and propagated from the finest specimens of this popular flower. Plants from seed can be produced cheaper, but those from divisions are much more satisfactory. Set them out early, any time after April 1st. Such plants will bloom nicely the first season and wonderfully the next. Each plant forms a big clump in a few years, and should then be taken up and divided and reset in spring or early fall. By cutting the plants off after they have bloomed you can make them produce a second crop of blossoms the same season. Cut within a few inches of the ground.

Consider Summer Mulching

Down south, and even here in Colorado, summer mulching can be employed to great advantage. This is simply covering the ground with a good thick dressing of straw, hay, or trash, after plants are pretty well grown. This keeps the ground moist, saves much watering, and winds up the season for weeding and cultivating. Understand, this is not to take the place of cultivation while plants are small, but is to be applied along in summer. It is especially desirable for such plants as dahlias, cannas, asters, and all such good-sized plants. Lawn clippings are good, too, as far as they go, but the objection is that you are apt to seed the garden to dandelions at certain times of year. Otherwise, you can't make better use of the clippings than to strew between the rows in garden.

Rotate Your Crops

That is, don't plant same kind on same ground year after year. Different plants take different things from the soil, to some extent. Different pests attack different plants (some living over in location where operated the previous season). Plant root crops where peas and beans were last year. Plant tomatoes where corn was, etc.

How to Grow Onion Sets

Ordinary sets (bottom sets) are nothing more than regular onions grown so close in the row that they cannot grow to large size. Withholding water also prevents their growing large. The seed is sown in rows, but the rows are made wider, 3 or 4 inches, instead of the usual narrow row. Long experience and judgment are required to produce sets well-matured and of ideal shape, but this is worth experimenting with on a small scale. 80 to 100 lbs. of seed to the acre are used for commercial set growing. For small garden use, an ounce for 25 to 30 feet of row—wide row. Red Wethersfield is used for growing red sets; Yellow Danvers for yellow, and Silverskin for white. Brown Australian and Mt. Danvers are also good.

To Make Head Lettuce Head

Use any heading variety I list, although Denver Market and Prize Head seldom make true solid heads. Iceberg and Hanson are fine for home garden, as both can be used as leaf lettuce also. Los Angeles is best for market. Fine for home, too.

Lettuce will seldom head in hot weather, unless grown in shade. It is a cool weather plant, doing best very early in spring, or late in fall, as head lettuce. The cool climate of the mountains is ideal for head lettuce. That's where the carloads are now grown for shipping. This is becoming a big and profitable industry in Colorado.

Sowing head lettuce seed late in fall, just before ground freezes, is one good way to get an early start the next spring. Very early spring sowing—March or early April, is good. Bear in mind that the ground should be good and rich, and that the plants should be thinned or transplanted to 6 to 10 inches apart. Then they should be hoed often, the oftener the better. You can't expect to pluck large solid heads of lettuce from a bed in which the plants are as thick as the proverbial hair on the proverbial dog's back.

Peony Pointers

Although we might like to buy and plant big clumps and have them bloom freely the first season, yet this is not Nature's way. Plant divisions any time in fall or very early in spring. Fall is best. There is some advantage in planting strong one-year or two-year plants, but larger clumps will be a disappointment. Size of divisions often misleading. A small division from a 2 to 4-year-old plant is often better than a larger one from an older plant. Size of root not so very important either, as new roots are formed. Takes several years for peonies to show true to name blossoms.

Never neglect the peonies after they have bloomed. The care and regular watering you give them after blooming until fall produces vigorous buds that will insure large and fine flowers the next year. As one peony grower sees it, the roots may be likened to storage batteries, which should be charged after blooming for the next flowering season. Fertilize by spading in manure around but not very close to peony plants. Never let the manure get close to roots or on top of the plants. This is important.

Doctoring Sick Plants

Do all you can to keep plants healthy, nipping insect attacks in the bud, so to speak, and promoting steady healthy growth by sensible care and cultivation. After a plant gets very sick, you'd better remove and destroy it, than spend much time trying to bring it back. Sure, there may be exceptions.

Would You Chew Wood?

You'd have a fit if the Missus would serve kindling and twine with your radish, turnips, beets, snap beans, etc. Yet many times these are served old and tough, and full of woody fibre and stringy entanglements. To avoid this, use vegetables when young and tender. To have them so when wanted, plant often. Don't think of planting radish, beets, beans only once. Plant every few weeks and see how nice it is to have them crisp, juicy and tender.

Iris—The Foolproof Plant

Give the iris half a chance and it will grow and thrive. Roots should be planted very shallow, just so well covered. Plant most any time of year, except when in bloom. Fall is ideal. Early spring is O. K., too. Iris needs only a small amount of water to do splendidly. Will thrive under rather dry and unfavorable conditions. Is a boon to dry farm gardens. A small division will sometimes, not always, bloom first year, and do fine after that. In a few years it produces a large clump which may be divided and reset, making a dozen iris grow where only one grew before.

Cinnamon Vines for Shade

Looks to me like this vine solves the problem of providing shade for porches, windows, and to make a nice background by training the vines over fences and unsightly objects. By planting the largest size roots and planting them early, the vines will provide more shade the first year than most anything else. And after the first year they do still better. Roots remain right in the ground, so one planting is the total expense and trouble. In very severe climates, it is well to mulch the roots for the winter. Plant the roots nearly a foot apart, laying root flat, and covering about two inches. Use large roots for best results. Unlike a dahlia root, the cinnamon vine root will grow even if broken into several pieces—each piece will grow. Quicker growth is obtained, however, if the terminal eye on small end is retained.

"Keep the Ball A-Rolling"

The old idea with many folks was to have one big spring gardening spasm, followed by spasmodic cultivation and let it go at that. But now, with garden space so valuable, and produce from the garden so expensive, and also more appreciated when it is fresh, we are learning how to get the greatest efficiency from our gardens.

Companion and succession crops are planned, to use space to best advantage and for as long a portion of the season as possible. Companion crops are early and late maturing kinds grown in alternate rows, so that when the early crop is off the late one may occupy the whole space for balance of the season. For instance, early radish, beets, lettuce, may go between rows of cabbage, tomatoes, squash or melons.

Succession crops are those following each other. The ground used for green onions from sets, radish, lettuce or early peas, may be used after these crops are off for celery, late sweet corn, beans or turnips. Two, three or even four crops of some things may be grown one after the other in a season.

LONG'S Random Remarks

Forget it. You can't expect to cut asparagus from a newly set bed. Should be cut very little, if any, even the second season. That is, if you want a good permanent bed that will deliver the goods. See page 6 of Hand Book.

Try planting morning glory and castor bean together. Thin to one plant of each in a hill.

Tomatoes thrive best in loose soil. Try digging large hole for each plant, and filling bottom with chopped sods. Avoid tramping ground close to tomato hills. Tomatoes respond to rich soil. They do not require great quantities of water.

Get most of your peas in early. Peas do best in cooler part of the season. Beans, however, thrive all summer until killing frosts. Here at Boulder we plant beans up to July 15th, and even as late as Aug. 1st.

Carrots do not require a great deal of water if well cultivated. Too much water often causes them to split open and rot. Make sowings up to middle of July for nice tender table carrots.

You can grow your own cabbage plants by sowing the seed right outdoors for main fall crop. Sow in April. Thin when small so each plant has room to become sturdy before being set out. If sow seed late, then use an early variety. Nothing better than Copenhagen Market.

Turnips grow fast. Sow from early spring to Aug. 1st. About July 15th to 25th is best for main fall or winter crop. Odd corners and ground from which early crops have been removed may be sown to turnips. Be sure to thin them early, if very thick.

Spinach is a cool weather plant. Runs to seed in hot weather. That is, the usual kinds do. Try New Zealand for hot weather. Common spinach should be sown very early in spring. Better yet, sow in fall, either in September and let it get a start in fall and winter over, or just before ground freezes, so will come up early in spring.

Are you growing salsify (vegetable oyster)? If not, why not? Just fine for soup. Plant April or May. Thin to 2 inches, so as to get fewer roots but larger ones. Small roots are harder to clean and prepare for cooking.

Cucumbers grow to beat the band in warm weather. May be planted up to Fourth of July, or even later.

Ever grow Kohl Rabi? Take a chance on a nickel package.

I know a good gardener who plants his melons twice, whether they need it or not. First planting is made early. If escapes frost, he has an early start. But the second planting is in same rows, but made a week or so later. In case the first planting freezes off, the second one is there all ready to pop through, and comes on earlier than if the patch were replanted after frost. Cost of seed is a small item compared with results from early crop. If both lots escape frost, the late one is hoed out.

My sales of Swiss chard are increasing by leaps and bounds, as people learn to appreciate this vegetable. Read about it in catalogue. After serving all the different purposes mentioned there, the roots can be taken up late in fall, transplanted into boxes and put in cellar near window. Will go on growing and providing splendid crop of greens for winter use.

Table beets should be planted every few weeks up to middle of July, to supply nice tender young roots as wanted all summer, and for canning. A great big "whopper" beet may be all right for exhibition purposes or to feed cows and chickens, but for table use the beets should be pulled when only partly grown.

In setting out an asparagus bed, make the rows 2 to 3 feet apart, and set plants 12 to 15 inches in row. Make a trench so the plants may be set just deep enough that the crowns will come 3 or 4 inches below level of ground. Spread the roots out flat, instead of jabbing them down straight. Fertilize the ground heavily each year between the rows, digging the manure into the soil. Don't waste effort filling deep trench with manure, as the roots do not go down deep. Fertilizer on top will seed down to the spreading roots.

Cauliflower heads best late in fall. You can grow your own plants from early-sown seed out in the garden, same as mentioned for cabbage. Tie the cauliflower leaves up to protect the head and keep it white. Do this when head is yet small.

Everlasting flowers are very popular now. Great quantities are grown and sold to florists, flower stores and art shops, for basket work and winter bouquets. See additional suggestions in my catalogue.

Rutabagas take longer to grow than turnips, so latest planting should be made not later than early July.

Get the jump on the garden pests by having a sprayer and several kinds of dope on hand before the pests show up. "A shot in time, saves nine."

Very early plantings, when ground is still cold except just on top, should be shallow. If seed gets down too deep in the cold wet ground it may rot. But later, when soil is warmed to a greater depth, you may plant deeper. In this connection it seems reasonable to suppose that we should not plow or spade ground deeply early in spring and plant at once in the soil that has been turned up from below, and has not yet had time to warm up. This is another reason for fall planting. Plow or spade deeply in fall, then give the top shallow spading or cultivating before planting in spring.

How do you transplant tomato plants? Do you just cover the portion of the plant that was in the ground before? Set your tomato plants very deep, so that more than half the plant is under ground. Some large and lanky plants should have three-fourths their length under ground. Pinch off all leaves except the few to remain on top of ground. If plants are extra large or tall, lay them on a slant in shallow trench, thus keeping all parts near the warm surface. Tomato plants take root all along any part of plant covered. Tops are not whipped and broken by winds when set this way. Set other plants deep also, just so you don't cover the crowns. Always water them at once, if possible.

Here's where many gardeners make a mistake: They think that rich soil is necessary to germinate and start seeds in boxes indoors or in hotbeds. Seeds require just heat and moisture to germinate. Given these conditions they will germinate with or without soil. In trying to make soil very rich for starting plants indoors, one is apt to burn the tiny plants. Use just any fine loose soil at first, and give rich soil after setting out in the garden. That's the principle I work on with my hardened pansy plants. No manure is used in the seed beds.

To cut down, or even eliminate entirely, the cost of onion sets, try this: Along in July or August sow a few rows of onion seed, just any kind you like. Let these partly grown onions remain right where they are over winter. Late in fall throw some brush or other coarse covering over them, or mulch with manure between the rows. The onions will start new growth early the next spring and make early green table onions. Even large onions may be left in the ground the same way for green onions the next season. But they will not grow on to make large dry bulbs for the next fall. White Silverskin is fine for this late summer sowing, though Mt. Danvers or any other variety will do also.

Theoretically, if you plant extra early, medium and late varieties of peas at the same time you will have a succession, one variety maturing after an earlier kind has come and gone. But in practice it doesn't always work out this way. Too many are likely to come on at about the same time. Better make some plantings a little later, sowing the extra early ones first. Try Ameer (Giant Alaska) planted just as early as the ground can be worked nicely. Then a little later, and when ground is warmed up somewhat, plant Laxtonian or Blue Bantam. In a week or so put in some Dwarf Telephone or Defiance, or some other medium to late varieties.

In very small gardens it is not advisable to use space for squash, pumpkins, or even sweet corn, for there are many other things that will produce much more valuable vegetables on same ground. Let the large gardeners and farmers grow some of these vegetables which require considerable room.

Never plant just one row of corn. No matter how few hills you may have, arrange them in blocks, several hills or more each way, so the ears will stand a better chance of being fertilized. Otherwise the ears may be only partially filled.

Try this for germinating parsnips and other seeds you have had trouble getting to grow. Make a small trench the right depth for whatever seed you are sowing. Nearly an inch deep would be all right for parsnip. Now wet the bottom of trench thoroughly. Sow the seed. Cover as usual, with soil not muddy. Sprinkle the covered row, so covering is well moistened. Either keep row just moist by light sprinkling, or as soon as top dries a little, run over it with the rake to break the crust and make a dust mulch. Running a small furrow next to the seed row, and letting water run down it, is another way of insuring sufficient moisture.

Heavy, stiff clay soils, or, in fact, most any kind, can be loosened and improved by sprinkling a pound of lime to 10 square feet and working it into the soil ten days or more before planting. Do not use lime and manure the same season.

Some Sources of Supply

For ornamental trees and shrubs, Rockmont Nursery, Boulder, Colo.; Sutherland Nurseries, Boulder, Colo. For fruit trees, berry bushes, etc., Colorado Nursery, Loveland, Colo. For certified Grimm alfalfa seed, ask your dealer to order a supply from Idaho Grimm Alfalfa Growers Association, Blackfoot, Idaho. Or, write this firm asking what seedsmen they have supplied. For information regarding any good-sized town and surrounding territory, write to secretary Chamber of Commerce in such towns. Is surprising what a lot of interesting information you can get in this way. Most towns have some such organization that gladly supplies folders, booklets, and answers special inquiries, without obligation to you.

The Long and Short of It

Mr. J. W. Valentine, a Boulder hardware merchant, enjoys a joke, especially if it's on the other fellow. So one day he handed me this clipping: "An optimist is a man who believes that the seed he plants in his garden will grow and look as good as the picture on the package." This is just one of the many jokes about the great discrepancy between a vegetable or flower as described by the seed man and as produced by the customer.

And it would be funny, too, if it were not so serious. Now listen! You must remember that we seedsmen talk about what can be produced under favorable or ideal conditions. How many seeds are planted and come through the season under such conditions? The object of these Garden Secrets or talks is to help provide such favorable conditions. It's amazing indeed to see what a great difference there is in results from same package of seeds grown under different conditions. In spite of all former experiences along this line I had an illustration in my own garden not long ago that stunned me. It came about in this way:

When sowing some of my Special Mixed aster seed one day in May, I chanced to spill a little of it at the end of a row, and close by a small apple tree stump. The ground was hard, and received little moisture, as was just out of range of my overhead sprinkling pipes. Several seeds germinated and the plants grew—but not so you could notice it very much, as the saying goes. Two of them, a pink and a lavender, actually bloomed. The blossoms were true to type and color, but miniature ones, and the plants less than three inches high. Out in that garden, from the same package of seed, were plants 30 inches tall, with many side branches, all loaded with large blossoms. I just thought, "Now what would a customer think if his asters behaved like the starved, neglected ones near that stump did for me; or, even if they did somewhat better, but failed to come up to my enthusiastic descriptions of these asters as I know them, under favorable conditions?" The tall or long results were out in the garden. The "short of it" were in "No Man's Land."

What About Roses?

I imagine I hear this question from some of you. I'll say frankly that what I don't know about roses would be mighty interesting and helpful reading. I find, however, several rose catalogues that give considerable space to growing and care of roses. Send for these free catalogues, to addresses as follows: The Dingee & Conard Co., West Grove, Pa.; Geo. H. Peterson, Fair Lawn, N. J.; Conard & Jones Co., West Grove, Pa. The latter also sell a book, How to Grow Roses, for \$1.25, prepaid. The De La Mare Co., address given elsewhere, also sell several books on roses.

Farm and Garden Magazines

A good farm or garden magazine, or several of them, will help you still more to "wise up" on these subjects. Hardly know where to begin or leave off in giving a list, as so many good ones. Try any of these: Western Farm Life, Denver, Colo.; Nebraska Farmer, Lincoln, Nebr.; Montana Farmer, Great Falls, Mont.; Nebraska Farm Journal, Omaha, Nebr.; Mail and Breeze, Topeka, Kan.; Wyoming Stockman, Cheyenne, Wyo.; Boulder County Miner and Farmer, Boulder, Colo.; Flower Grower, Calcium, N. Y.; Garden Magazine, Garden City, N. Y. Write any these publishers for their prices.

Free Government Bulletins

Read every word regarding how to get these bulletins, and avoid disappointment. Don't send to me. I cannot supply them.

There are two ways to get these bulletins free; and one way to get them at 5c each, in case free lot is exhausted.

Bulletins will be sent you free (not over 10 to one person) by the Department of Agriculture, Division of Publications, Washington, D. C., or by your U. S. Representative or Senator. They may be bought for 5 cents each from Superintendent of Documents, Government Printing Office, Washington, D. C. A list of several hundred bulletins will be mailed you upon request to the Department of Agriculture, Division of Publications, or your Congressman. For your convenience, and to save time, I give you the following list of the best and most needed and helpful bulletins. Just address a postcard to any of the foregoing free bulletin sources, asking for those you wish, giving number and name of each bulletin. If free copies cannot be had, then order at 5 cents each from the Superintendent of Documents.

829 Asparagus. 254 Cucumbers. 232 Celery. 195 Annual Flowering Plants. 218 School Gardens. 1087 Beautifying the Home Grounds. 354 Onion Culture. 433 Cabbage. 1211 Home Canning of Fruits and Vegetables. 544 Pop Corn for the Market. 628 Squash Vine Borer. 739 Cutworms. 750 Roses for the Home. 766 Cabbage Worms. 879 Home Storage of Vegetables. 914 Melon Aphids. 921 Liming of Soils. 1007 Onion Trips. 1027 Strawberry Culture in West. 1028 Strawberry Culture in East. 1033 Striped Cucumber Beetle. 1044 City Home Garden. 1074 Bean Ladybug Control. 1163 Dry Farming. 181 Pruning. 289 Beans. 414 Corn Cultivation. 511 Farm Bookkeeping. 690 Field Peas. 740 House Ants. 747 Grasshoppers. 771 Homemade Fireless Cookers. 823 Sugar-Beet Syrup. 830 Marketing Eggs by Parcel Post. 887 Raspberry Culture. 920 Milk Goats. 944 Web Worms. 1126 Sudan Grass. 1182 Farm Inventories.

Listen! Order these bulletins as I have indicated. Don't order from me. I can't get them for others.

Your "Aggie" College Will Help

In addition to the bulletins to be had from Washington, D. C., you can get many helpful bulletins and suggestions from your State Agricultural College. Write them and ask for list of free publications they can supply.

Furthermore, write these colleges asking for information concerning your special farm and garden problems. I receive many inquiries that should be sent to the Agricultural College. I can't give the time to answer, even if I had the data at hand, but the college is at your service and is paid for this work. You will find the professors very obliging in such matters.

Some states do not have separate Agricultural Colleges, but handle this work in connection with their universities. In either case, just address your inquiry to **Agricultural College**, to town or city I give herewith, and you will reach the department you wish. Here are the addresses of some of our western state "Aggies":

Colorado, Fort Collins. Idaho, Moscow. Iowa, Ames. Kansas, Manhattan. Minnesota, St. Paul. Montana, Bozeman. Nebraska, Lincoln. North Dakota, Agricultural College. Oklahoma, Stillwater. South Dakota, Brookings. Texas, College Station. Wyoming, Laramie.

Ten Splendid Booklets

To give you additional garden and farm help at little or no expense to you, I have made arrangements with a Middle West seed firm to supply me with ten booklets. The price of each booklet is ten cents. I buy them at wholesale, and will supply my customers on the following terms:

Five Cent Offer. If you send me an order, no matter how small (though I trust you can make it a dollar or so, at least), I will send you any of these booklets at five cents each. Buy as many as you wish at this price.

Free Offer. Send me an order, amounting to \$3.00 or more and I will include any booklet free. You may buy as many more as you wish at the five cent price.

Now don't judge the value of the booklets by the low price. Honestly, I have bought books for a dollar or more that do not give as much helpful information as **No. 1: Hand Book for the Garden**, for instance. The other booklets are also very valuable.

If you get just one, then get the **Hand Book for the Garden**, as it covers the most subjects, and is the all-around garden booklet. Has 46 pages and cover. All have strong, durable paper covers that will last for a long time.

No. B1, Handbook for the Garden. This deals with growing of both vegetables and flowers, including fall bulbs. Tells how to make and handle hotbeds, coldframes; gives tables for amount of seed to sow, number of plants to fill circular beds, etc., etc. Gives the "once over" to subjects treated in detail in some of the other booklets.

B2. Onion Culture.

B3. Cabbage Culture.

B4. Corn for the Northwest.

B5. Silage and Silos.

B6. Potato Culture.

B7. Insects and Diseases.

B8. Profitable Poultry.

B9. Alfalfa.

B10. Meadows and Pastures.

Any booklet to any customer at five cents each. To others not customers, ten cents each. One free with order for \$3.00 or more. All prepaid.

Start a Garden Library

I'll give you the address of publishers that make a specialty of all sorts of books on gardening, and related subjects. They can supply books from ten cents to ten dollars each, most of the books being handsomely bound and a credit to any library. Get their catalogue, and order direct from the publisher, any book that you need. Address your inquiry for garden book catalogue to: **A. T. De La Mare Co., 438 West 37th St., New York City.**

Fall Bulb Leaflet Free

With each order for fall bulbs, I include my own leaflet of instructions, free. Or, copy will be sent anyone for 2-cent stamp.

Write "Aggies" In Other States

Not only write your own college, but if you want information about where to secure seeds, trees, etc., in some other state, write the college in that state. For instance: A man out on the Pacific Coast wanted to get some tree seeds of Colorado trees. He wrote me for information. Wasted his time and mine. I told him to take this up with our Agricultural College. That's their job.

LONG'S Business Terms—Read Before Ordering

Safe delivery guaranteed.

Everything in this catalogue priced prepaid unless otherwise noted.

Cash with order, or C. O. D. Please do not ask us to fill orders on any other terms.

C. O. D. orders. Bear in mind that C. O. D. orders cost you 13 cents extra for collection and M. O. fees. Avoid this method if possible.

Goods priced prepaid will be sent by parcel post or express, usually parcel post. If you specify a certain way and the other is cheaper, you pay the difference.

We ship promptly, or notify you if goods are to be sent later. So if you fail to receive goods or a notice within one week, please

drop us a line at once. Don't wait. If your order or the goods have gone astray the sooner we know it the better.

I want you to report errors. Just drop me a line stating the trouble. That's enough. Don't need to sass me. You really get better results if you don't. "Use discretion!"

But do this, please: Don't just say you are short an item. Tell me just what item it is and the quantity. Reason: We don't stop to look up your order at the time, but just send what you say is due you. It's done quickly, whereas if we have to go through our files to find your order the adjustment may be delayed. We take your word and adjust immediately. Later we may look up and report in case find you did not order the item not sent.

Ask for Larger Lot Prices on Hubam Clover Seed

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LONG'S Safety-first Lawn Grass Seed

It is safest and cheapest to buy the very purest and best White Clover and Blue Grass seed for your lawn, because: You avoid seeding your lawn with the noxious weeds found in cheap grass seeds, and get so much higher germination that a pound of the best will cover as much as two pounds of the cheap, chaffy, low germinating seed.

LG1. PUREST WHITE CLOVER SEED. Lb., 80c, prepaid. **Five Lbs.:** 2nd zone, \$3.80; 3rd zone, \$3.85; 4th zone, \$3.95; prepaid.

LG2. BEST KENTUCKY BLUE GRASS SEED. Extra heavy and clean. Lb.: 70c; 2 lbs., \$1.35; prepaid. **Five Lbs.:** 2nd zone, \$3.00; 3rd zone, \$3.05; 4th zone, \$3.15; prepaid. **Ten Lbs.:** 2nd zone, \$5.85; 3rd zone, \$5.95; 4th zone, \$6.15; prepaid. Write for prices on larger lots.

Note. The Government standard germination of Blue Grass Seed is 45 to 50%. My re-cleaned, heavy, purest seed tests 75 to 90%. Lots of Blue Grass Seed is sold testing 40% or less.

LG3. SAFETY-FIRST MIXED LAWN SEED. One part clover to three parts blue grass. Lb.: 75c; 2 lbs., \$1.45; prepaid. **Five Lbs.:** 2nd zone, \$3.35; 3rd zone, \$3.40; 4th zone, \$3.50. **Ten Lbs.:** 2nd zone, \$6.00; 3rd zone, \$6.10; 4th zone, \$6.30. Sow about one pound to 350 square feet. If want mixed in other proportion, buy the clover and blue grass separately and mix them yourself.



Harvesting Kentucky Blue Grass

These machines do not mow the grass but strip the seed from the stalks by whipping the heads with revolving cylinders. This method saves the seed with the minimum amount of straw and foreign seeds.

Now to get the purest, cleanest grade this Blue Grass Seed has to be run through the mills again and again until all the light seed the chaff is eliminated, leaving nothing but the very heaviest and plumpest seed which, of course, is the seed with strongest vitality. This is the grade I sell.

Open Season for Lawns

The entire grounds around the Boulder High School were seeded with my lawn seed late in August and a splendid stand secured. New lawns may be started or old ones renewed or renovated any time from earliest spring to October. Sowing the seed on top of spring snows is one good plan.

Every year I sell the City of Boulder a lot of Blue Grass and White Clover seed. The beautiful lawns on the Chautauqua grounds are living testimonials for **LONG'S** Safety First Lawn Grass Seed.

The State University grounds are being made still more beautiful by the use of hundreds of pounds of **LONG'S** Safety-First lawn seed.

How to Grow Dandelions

Dandelions thrive well on front lawn with street exposure. Nature supplies the seed, gratis. After the plants are well started dig a part of the roots out, cutting them off just a little below the surface. This causes the roots to branch, sending out new shoots of luxuriant growth. Thus you make two or more dandelions grow where but one grew before. Avoid cutting too deep or extracting more than half the root, lest you ruin the plant.

Do not sow Blue Grass or White Clover on your lawn after digging if you want the floating dandelion seed to lodge and take root wherever the ground has been disturbed. Avoid, also, raking the lawn and sowing pure grass seed from March to September. While the grass seed may not entirely run out the dandelions, it will at least cause a weak and sickly growth of them.

Sowing cheap light-weight blue grass seed is a harmless practice, as little will grow and most of it will blow away. But with white clover seed it is different. Most cheap white clover seed contains a large per cent of plantain seed and the plantain will choke out the whole works, dandelions, grass and all. It is almost impossible to get rid of the plantain.

To keep a green lawn and discourage dandelions sow grass seed every year, several times during the season is a good plan. Pure blue grass and white clover are the best grasses. Buy a good dandelion rake and exercise it daily.

Above all things, sow only pure seed, for cheap seed often contains worse weeds than dandelions.

How to Make and Maintain a Good Lawn

A mixture of good lawn seed and horse sense will go far to insure a good lawn. New lawns should be thoroughly worked, leveled and allowed to settle, then leveled again. The more care you give the lawn along this line before sowing the seed the better results you will have. Seed will wash to the low spots and make your lawn spotted. Some will complain that the seed was not good as came up only in spots. Sow about one part clover to three parts blue grass.

Sow part the seed one way and then sow some more crosswise, so as to avoid streaks. Rake well before and after sowing. Save some seed for sowing in spots that fail to

come thick enough. Water gently but thoroughly so often that soil never dries out until seed is up. Clover comes quickly. Blue Grass comes slowly but hangs on like grim death after once gets a foothold. Clover draws nitrogen from the air and enriches the ground for itself and the Blue Grass.

Old lawns should be re-seeded and fertilized from time to time. Use only the purest seed, as simply horse sense would suggest. Five pounds bone meal to 100 square feet is good in spring or summer. Rotted barn-yard manure is O. K. if applied in winter or early spring. See also suggestions above.

LONG'S Colossal Zinnias: Immense; Dazzling

Visitors to my gardens go wild over these enormous, gorgeous zinnias.

Plants 3 to 4 feet high; begin blooming in 60 days from seed sown out doors. They bloom, and bloom, and bloom. And such gigantic blossoms! I've grown them even larger than this picture. Prices reduced for 1922.



Colossal Zinnias In Separate Colors

Z1 Snow White; **Z2** Apricot-Yellow; **Z3** Pink; **Z9** Salmon. Any color at 10c pkt. (15c last year.) **Z11** *LONG'S* Special Mixture, Pkt. 10c; ¼ oz. 40c.
Z4 Deep Primrose (Buttercup); **Z5** Crimson;
Z6 Golden Yellow; **Z7** Orange; **Z8** Purple;

LONG'S Dahlia Flowered Zinnias

Z12 Similar to Colossal, but flowers a little larger, which is going some. Blossoms resemble the decorative type of dahlia. Many new, rich colors, running a little darker than Colossal. Sold in mixed colors only. Pkt. 20c (25c last year); ¼ oz. 70c.

The J. D. Long Seed Company, Boulder, Colorado